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## ABSTRACT

Occupational analysts using Comprehensive Occupational Data Analysis Programs (CODAP) make subjective decisions at various stages in their analysis of an occupation. The possibility exists that two different analysts could reach different conclusions in analyzing an occupation, and thereby provide divergent guidance to management. Two analysts, working independently, performed job typing using CODAP on occupational data collected by a single administration of a job inventory. Each analyst selected the same size sample, at random but without any cases common, from the total survey. The job types identified by each analyst were compared to determine whether they were significantly different in any respect. Superficial differences appeared between the results of the two analyses, but were largely resolved when job types reported by the first analyst were compared not only on a one-to-one basis with job types reported by the second analyst, but also with combinations of job types reported on the second occasion. The contents of this report are highly technical and will be of primary interest to persons working in the field of occupational analysis, both in terms of content and application of techniques. (Included are 54 statistical tables.)  
(Author/BP)

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AFHRL-TR-73-58

## THE SIMILARITY OF JOB TYPES REPORTED FROM TWO INDEPENDENT ANALYSES OF OCCUPATIONAL DATA

By

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February 1974

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## PREFACE

The work reported in this study was accomplished under Project 7734, Development of Methods for Describing, Evaluating, and Structuring Air Force Occupations; Task 773403, Development and Evaluation of Methods for Grouping Work Activities into Positions, Specialties, and Career Fields.

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## TABLE OF CONTENTS

|   | Page |
|---|------|
| I. Introduction .....   | 7    |
| II. Procedure .....   | 7    |
| Computer Programs Available .....   | 9    |
| Job Types Identified in the First Sample .....  | 9    |
| Job Types Identified in the Second Sample .....   | 9    |
| III. Job Type Analysis of the Second Sample .....                                       | 9    |
| Branch Diagrams .....   | 9    |
| Background Information .....  | 11   |
| Duty and Task Comparison Tables .....   | 11   |
| IV. Comments On Total Sample GRP001 .....   | 11   |
| Branch Diagram and Background Information (Table 3) .....                               | 11   |
| Duty and Task Comparison Tables (Tables 4 and 5) .....                                  | 13   |
| V. Comments on Item Accounting and Maintenance Support GRP012 Cluster .....             | 16   |
| VI. Comments on Warehouse and Supply GRP019 Cluster .....                               | 16   |
| VII. Comments on Inventory GRP053 Subcluster .....                                      | 32   |
| VIII. Comments on Supervisors and Specialists GRP037 Clusters .....                     | 32   |
| IX. Comments on Allowance and Authorization GRP021 Subcluster .....                     | 48   |
| X. Comments on Job Type Groups Supply Inspectors GRP031 and PCAM Operators GRP818 ..... | 48   |
| XI. Similarity of Job Types Identified in the Two Different Samples .....               | 48   |
| References .....  | 55   |

## LIST OF TABLES

| Table |   | Page |
|-------|---|------|
| I     | Comparison of Mean Values of Key Background Variables for DAFSC Groups in Sample I and II ..... | 8    |
| 2     | Branch Diagram -- Sample I .....  | 10   |
| 3     | Branch Diagram -- Sample II .....   | 12   |
| 4     | Duty Comparison of GRP001 -- Total Sample .....   | 14   |
| 5     | Task Comparison of GRP001 -- Total Sample .....   | 15   |
| 6     | Job Types in GRP012 -- Item Accounting and Maintenance Support Cluster .....                    | 17   |
| 7     | Duty Comparison of GRP012 -- Item Accounting and Maintenance Support Cluster .....              | 18   |

**List of Tables (*Continued*)**

| Table |  | Page |
|-------|--|------|
| 8     | Task Comparison of GRP012 — Item Accounting and Maintenance Support Cluster .....          | 19   |
| 9     | Job Type Subclusters in GRP019 --- Warehousing and Supply Cluster .....                    | 20   |
| 10    | Duty Comparison of GRP019 --- Warehousing and Supply Cluster .....                         | 21   |
| 11    | Task Comparison of GRP019 --- Warehousing and Supply Cluster .....                         | 22   |
| 12    | Job Types in GRP028 – Delivery Subcluster .....  | 23   |
| 13    | Duty Comparison of GRP028 --- Delivery Subcluster .....                                    | 24   |
| 14    | Task Comparison of GRP028 --- Delivery Subcluster .....                                    | 25   |
| 15    | Job Types in GRP029 – Issuing Subcluster .....   | 26   |
| 16    | Duty Comparison of GRP029 --- Issuing Subcluster .....                                     | 27   |
| 17    | Task Comparison of GRP029 --- Issuing Subcluster .....                                     | 28   |
| 18    | Job Types in GRP030 – Receiving Subcluster .....   | 29   |
| 19    | Duty Comparison of GRP030 --- Receiving Subcluster .....                                   | 30   |
| 20    | Task Comparison of GRP030 --- Receiving Subcluster .....                                   | 31   |
| 21    | Job Types in GRP053 – Inventory Subcluster .....   | 33   |
| 22    | Duty Comparison of GRP053 --- Inventory Subcluster .....                                   | 34   |
| 23    | Task Comparison of GRP053 --- Inventory Subcluster .....                                   | 35   |
| 24    | Job Type Subclusters in GRP037 – Supervisors and Specialists Cluster .....                 | 36   |
| 25    | Duty Comparison of GRP037— Supervisors and Specialists Cluster .....                       | 37   |
| 26    | Task Comparison of GRP037 --- Supervisors and Specialists Cluster .....                    | 38   |
| 27    | Job Types in GRP060 – Senior Supervisor and Specialist Subcluster .....                    | 39   |
| 28    | Duty Comparison of GRP060 --- Senior Supervisor and Specialist Subcluster .....            | 40   |
| 29    | Task Comparison of GRP060 --- Senior Supervisor and Specialist Subcluster .....            | 41   |
| 30    | Job Types in GRP 070 – Inventory Management Supervisors and Clerks Subcluster .....        | 42   |
| 31    | Duty Comparison of GRP070 --- Inventory Management Supervisors and Clerks Subcluster ..... | 43   |
| 32    | Task Comparison of GRP070 -- inventory Management Supervisors and Clerks Subcluster .....  | 44   |
| 33    | Job Types in GRP062 – Requisitioning Subcluster .....                                      | 45   |
| 34    | Duty Comparison of GRP062 --- Requisitioning Subcluster .....                              | 46   |
| 35    | Task Comparison of GRP062 --- Requisitioning Subcluster .....                              | 47   |

**List of Tables (*Continued*)**

| <b>Table</b> |   | <b>Page</b> |
|--------------|---|-------------|
| 36           | Job Types in GRP021 – Allowance and Authorization Subcluster .....          | 49          |
| 37           | Duty Comparisons of GRP021 --- Allowance and Authorization Subcluster ..... | 50          |
| 38           | Task Comparison of GRP021 --- Allowance and Authorization Subcluster .....  | 51          |
| 39           | Similarity of Job Types .....   | 52          |
| 40           | Comparison of Background Variables for Job Type Pairs .....                 | 53          |
| 41           | Stability of Job Type Group Size .....                                      | 54          |

## THE SIMILARITY OF JOB TYPES REPORTED FROM TWO INDEPENDENT ANALYSES OF OCCUPATIONAL DATA

### I. INTRODUCTION

The Air Force uses as a management tool the results of occupational analysis in which job information, collected by inventory booklet from a large sample of job incumbents, is studied by a professional analyst using a set of specially prepared computer programs known as Comprehensive Occupational Data Analysis Programs (CODAP). Because of intrinsic differences between occupations, standardized analysis procedures are not always practicable. Though analysts on most occasions will process the occupational data through the same sequence of computer programs, the results at various stages must be interpreted by the analyst, and subjective decisions made. Under such circumstances, the possibility exists that two different analysts could reach different conclusions from studies of comparable samples drawn from the same occupation. This research investigates this possibility for one of the basic stages of occupational analysis, that of job typing.

The job types reported are the result of a subjective selection by the analyst from the variety of clusters formed by a computer program. His selection is based in part on a branch diagram of job type clusters printed by the computer, but in making his decisions he is guided by the wealth of background information collected on job incumbents by the inventory, together with detailed printouts of all the duties and tasks performed by each possible cluster. (For an example of this selection process, refer to Comments on Item Accounting and Maintenance Support GRP012 Cluster, in a following section of this report.

### II. PROCEDURE

An occupational survey of the Inventory Management and Materiel Facilities career ladders, Air Force Specialty Codes (AFSC) 645X0 and 647X0, was carried out by the Occupational Survey Branch of the 3700 Occupational Measurement Squadron (ATC) in 1972. The survey instrument was an inventory booklet containing 24 duties subdivided into a total of 529 tasks. Usable inventories were returned by 5,544 job incumbents, representing about 15% of the total Air Force manning in these specialties at that time. Since the computer programs used to analyze the

data were limited to a maximum of 1,996 cases, a sample of 1,983 cases, drawn at random from the 5,544 cases collected, was analyzed. The results of that analysis were reported in Occupational Survey Report, AFPT90-64X-069, 1 October 1972, 3700 Occupational Measurement Squadron (ATC), and constitute the first of the two independent analyses which are the subject of this report.

For the present analysis, a second sample of 1,983 cases was drawn from the 3,561 cases not used on the first occasion. Job typing was performed by the writer of this report using computer programs selected from CODAP. In comparing the results of the two analyses, the main variable was to be the analyst, in particular the computer programs he selected for analysis and the interpretation he placed on the results produced by them. It was therefore necessary to ensure that the two samples used for analysis were of similar composition. If the two samples were significantly different, it would be reasonable to expect different results no matter what the analyst's approach. Conversely, if the same cases were included in both samples, unwarranted similarities could appear.

Since the first sample had been drawn from the original data by a random selection process, the second sample was drawn by the same process from those cases not used the first time. Then, to ensure comparability, a summary of 13 key background variables such as grade, AFSC, time in present job, time in AFSC, average number of tasks performed, etc., was computed for each of the 13 AFSC groups included in the survey. For each variable, the distribution or mean for the AFSC group, as appropriate, was compared with that of the AFSC group in the original sample, with the intention of substituting new cases to adjust for any major discrepancies between the samples. The eight variables for which mean values were computed are shown in Table 1; the variations observed were not considered large enough to warrant any substitutions. As a further check, printouts of all the duties and tasks performed by each AFSC group in both samples, showing what percent of the group performed the duty or task and how much of their time was spent on it, were compared and revealed negligible differences between the samples (e.g., for SPC001 All Airmen DAFSC 654X0, the top 20 tasks were common to both samples; the average absolute difference in percent time spent by members on each of these

TABLE 1. COMPARISON OF MEAN VALUES OF KEY BACKGROUND VARIABLES FOR DAFSC GROUPS IN SAMPLE I AND II

|   |           | 645X0 | 647X0 | 64530 | 64550 | 64570 | 64590 | a64530A | 64550A | 64570A | 64730 | 64750 | 64770 | 64790 |
|---|-----------|-------|-------|-------|-------|-------|-------|---------|--------|--------|-------|-------|-------|-------|
| <u>Av. Number<br/>of Tasks</u>          | Sample I  | 30.6  | 31.7  | 16.5  | 25.4  | 40.1  | 52.3  | 112.8   | 79.7   | 103.5  | 20.9  | 29.4  | 45.1  | 67.6  |
|   | Sample II | 35.5  | 30.5  | 17.4  | 30.4  | 45.6  | 56.0  | 178.0   | 80.1   | 118.0  | 19.5  | 29.7  | 41.0  | 64.6  |
| <u>Grade</u>                            | Sample I  | 4.8   | 4.2   | 3.1   | 4.1   | 5.9   | 8.0   | 4.0     | 4.7    | 6.0    | 2.8   | 3.9   | 5.8   | 7.8   |
|   | Sample II | 4.8   | 4.1   | 3.1   | 4.1   | 5.9   | 7.9   | 5.0     | 4.7    | 6.0    | 2.8   | 3.9   | 5.8   | 7.8   |
| <u>No. of People<br/>Supervised</u>     | Sample I  | 1.7   | 1.9   | 0.3   | 0.5   | 3.5   | 3.8   | 0.0     | 0.5    | 1.8    | 0.1   | 0.9   | 4.7   | 5.0   |
|   | Sample II | 1.6   | 1.9   | 0.2   | 0.6   | 3.2   | 4.2   | 0.0     | 0.4    | 2.3    | 0.1   | 1.5   | 4.8   | 5.0   |
| <u>Total Months<br/>Present Job</u>     | Sample I  | 14    | 12    | 6.7   | 14    | 15    | 13    | 10      | 18     | 18     | 6.7   | 13.5  | 17    | 13    |
|   | Sample II | 14    | 12    | 6.7   | 15    | 15    | 16    | 15      | 18     | 20     | 6.7   | 13.5  | 16    | 13    |
| <u>Total Months<br/>In DAFSC</u>        | Sample I  | 60    | 56    | 9.5   | 43    | 109   | 79    | 36      | 52     | 69     | 8.6   | 51    | 110   | 144   |
|   | Sample II | 60    | 56    | 10.0  | 43    | 110   | 68    | 87      | 55     | 84     | 8.6   | 51    | 110   | 145   |
| <u>Total Months<br/>In Career Field</u> | Sample I  | 94    | 75    | 10.0  | 48    | 170   | 240   | 55      | 79     | 148    | 8.8   | 54    | 174   | 249   |
|   | Sample II | 93    | 75    | 11.9  | 49    | 162   | 236   | 111     | 76     | 151    | 8.3   | 55    | 178   | 265   |
| <u>Military Service</u>                 | Sample I  | 104   | 84    | 18    | 55    | 185   | 263   | 70      | 111    | 196    | 13    | 61    | 194   | 271   |
|   | Sample II | 106   | 84    | 20    | 58    | 183   | 258   | 128     | 122    | 196    | 13    | 64    | 194   | 288   |
| <u>Based CONUS</u>                      | Sample I  | 1.3   | 1.3   | 1.1   | 1.3   | 1.5   | 1.5   | 1.6     | 1.4    | 1.5    | 1.1   | 1.2   | 1.3   | 1.2   |
|   | Sample II | 1.3   | 1.2   | 1.1   | 1.3   | 1.4   | 1.4   | 1.0     | 1.4    | 1.6    | 1.0   | 1.2   | 1.3   | 1.1   |

a Very small group (N=2) - hence the instability.

tasks was .04; and the average absolute difference in percent members performing each of these tasks was slightly below 1%. These differences were typical of those observed).

Thus, the second sample was judged to be sufficiently similar to the first to preclude any difference in final results being attributable to differences between the samples analyzed.

#### Computer Programs Available

Generally speaking, computer programs for use in occupational analysis are subject to continual evolution and change. However, the programs designed for job type identification underwent no change between the time the two samples were analyzed; i.e., all the programs available to the second analyst were also available to the first. Thus, any differences in final results were not caused by differences in available tools.

#### Job Types Identified in the First Sample

No record is available of the sequence of analysis or the reasons for decisions made by the first analyst. (There is, of course, no reason why there should be; such records would normally be destroyed after the final report is written and approved). The final report identified 29 functional areas, consisting of 20 clusters of job types, showed diagrammatically the sequence of clustering, and gave amplifying descriptions of 10 of the major clusters. (For details, see Occupational Survey Report, AFPT90-64X-069; also Table 2, Branch Diagram Sample I, of this report.)

#### Job Types Identified in the Second Sample

If the job types identified in the second sample had been obviously identical with those of the first, a statement of that fact would constitute this complete report. Preliminary comparisons appeared to indicate considerable differences between the job types identified on the two occasions, but in fact, as the discussion will show, the basic job types in the two analyses were quite similar. The second analysis identified three major job clusters and two subclusters, the major clusters being subdivisible in stages into eight more subclusters, and the whole sample eventually breaking into 51 job types (cf., 20 clusters and 9 unclustered job types in the first report). Further, the names used by the analysts to identify these clusters and job types often differed, and sometimes the same name was used for different groups. For example, the first analyst named GRP 300 the Warehouse Cluster, while the second

analyst used this name to describe a group (GRP019) in his clustering diagram which was approximately nine times as large and contained a job type group equivalent to GRP300.

As the results of the two analyses were not obviously similar, a detailed report of the job type analysis of the second sample is now given, to enable comparisons with the results of the first analysis to be drawn.

### III. JOB TYPE ANALYSIS OF THE SECOND SAMPLE

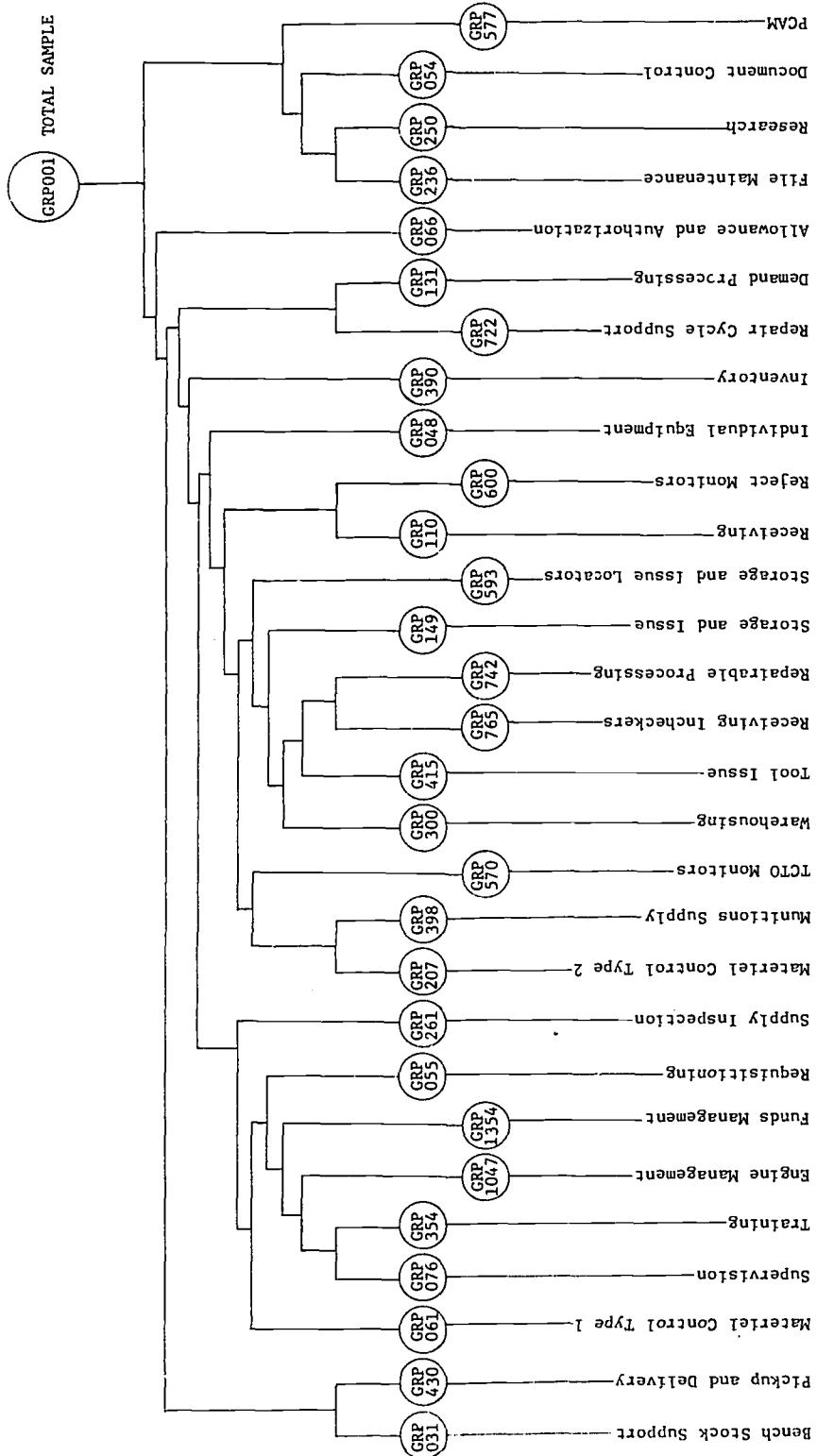
During the analysis of the second sample, no reference was made to the results of the first investigation, as it was felt that knowledge of the names and natures of the job types identified would influence subjective decisions and affect the independence of the second analysis.

To identify the types of jobs performed by the airmen in the second sample, an automated job clustering program was used. The computer compared the job of each member with that of each of the other 1,982 in the sample, located the two most similar jobs in terms of time spent on tasks, and merged them into a two-job cluster, which it identified as GRP1982. This process was repeated, with each iteration forming a new cluster or combining two existing ones, depending on the similarity of the jobs. Eventually, after 1,982 iterations, the whole sample merged into one group, called GRP001. Printouts recorded the identification and overlap values at each stage, while a further program displayed the results of the clustering in diagram form. A detailed description of the method for analyzing occupational survey data, using a miniature sample, is contained in Archer (1966). From this information, significant job types and clusters of job types were identified, and duty and task job descriptions were computed for each. (Computer printouts of group job descriptions for the reported job types, as well as supporting statistical data, are available to qualified users on request to AFHRL/OR, Stop #63, Lackland Air Force Base, Texas 78236.) Background variables such as AFSC, skill level, grade, etc., have no bearing on this clustering process; only the time spent by each case on each task is considered.

#### Branch Diagrams

The relationship between the various job types identified by analysis of the computer produced diagram, job similarity (overlap) values, job

TABLE 2. BRANCH DIAGRAM -- SAMPLE I



descriptions, background variables, etc., can conveniently be displayed by a branch diagram. Such diagrams are included in this report for the Total Sample (GRP001), see Tables 2 and 3, and for each major job cluster and subcluster. Cluster titles are based on either the job titles reported by the incumbents themselves, or on the tasks and duties they perform. Branch lines in the diagram indicate the sequence of clustering. Job type clusters and subclusters are shown by circles, while job types are shown by pentagons. Totals for isolates; i.e., those whose jobs are so unique that they do not fit into any cluster or job type, are shown in square boxes near the cluster or job type with which they eventually merged one or two at a time. The smallest number of cases accepted as a group was 10, or about .5% of the sample. Any groups smaller than this were included with the isolates.

#### Background Information

Below each branch diagram is tabulated a summary of the main background information on each group, condensed from the complete summary of background variables (VARSUMS) located in the associated computer printout.

1. KPATH. The KPATH sequence is one allocated by the computer which reorders the cases to place most similar jobs in proximity to each other. Thus, in a job type group, the cases are identified by a block of consecutive identification numbers called the KPATH sequence. The background information is also printed in this sequence and so can be readily located for any job type group.

2.  $N$  = number of cases in the group.

3. Career Ladder 645X0/647X0. This is the relative distribution by DAFSC for each group. As not every respondent provided this information, there is sometimes a discrepancy between the total of this distribution and  $N$ .

4. Average Grade. This is the average grade for the group on the 9-point scale (E1 through E9).

5. Average Number Tasks. This is the average number of tasks performed by the group.

6. The Number Supervised. This is the average number of personnel supervised by the group members.

7. T25, T50, T75. This records the number of tasks performed by the group in 25%, 50%, and 75% of their work time, and gives a measure of degree of specialization, versatility, etc.

#### Duty and Task Comparison Tables

Tabulations of the most important duties and tasks, in terms of the number performing and amount of time spent, accompany the branch diagram for each of the groups to enable the investigator to discern more readily the essential similarities and differences between members of the cluster. In each table, column entries show the group identification number and the number in the group; then for each duty or task is tabled the percent of group members who perform the duty or task (%N), together with the average percent of time spent by all members of the group on that duty or task (%T), both rounded to the nearest percent. In some cases, it has been necessary to abbreviate the duty or task title. Full titles are included in the computer printouts. The information in the duty and task comparison tables was extracted from the group job descriptions (GRP001, etc.) and the primary job identifiers (PRI001, etc.), both of which are indexed in the computer printouts.

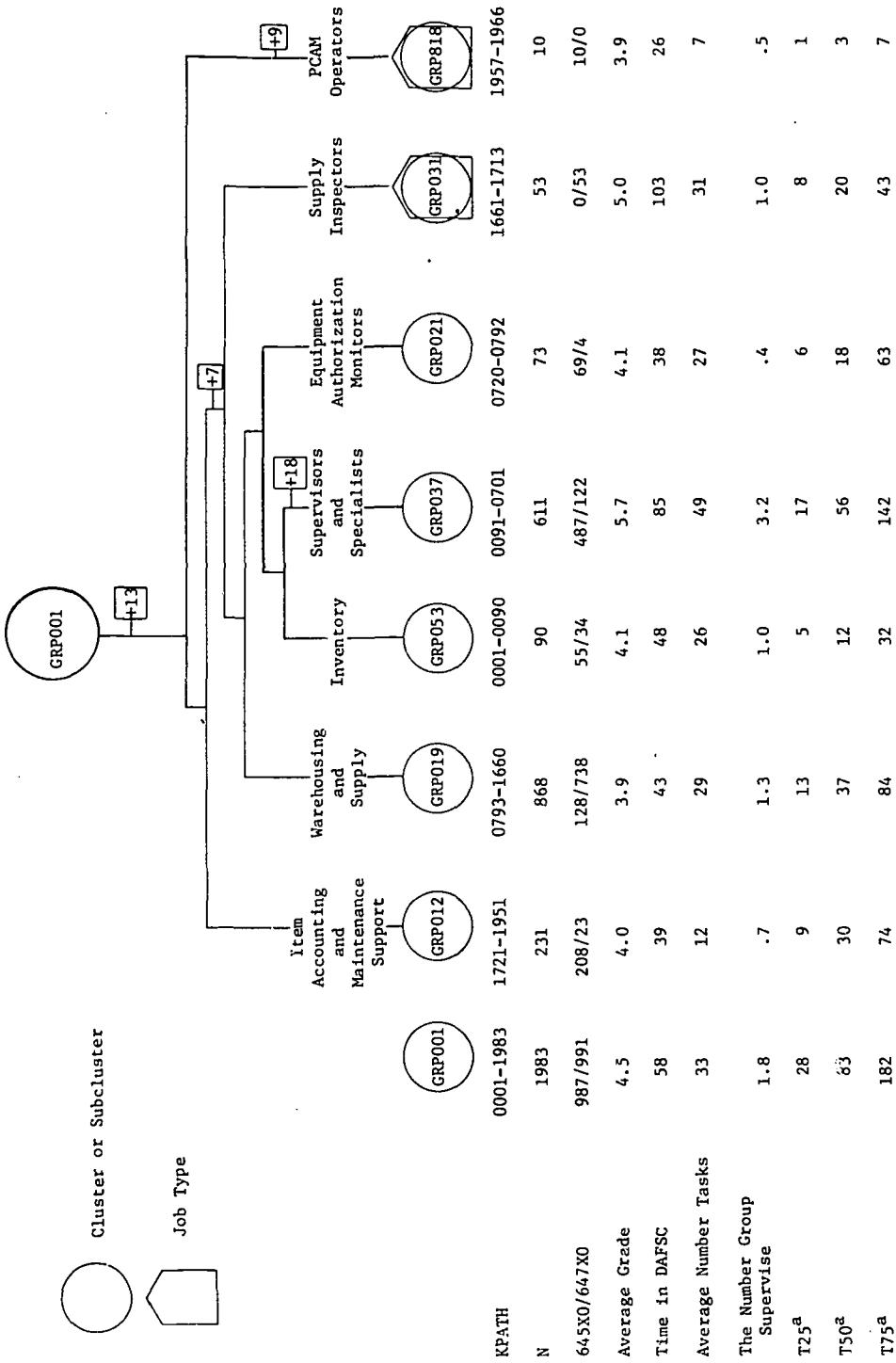
Note that while all duties are included in the Duty Comparison tables, only the top few tasks for each group are included in the Task Comparison tables, so that at most, only about 25 of the 529 tasks in the inventory are compared for the member groups of each cluster. Figures indicating heavy involvement in the duty or task are underlined, and the table is completed to show the involvement, if any, of each other member group in the cluster. Dashes(--) on the tables indicate a low level of involvement rather than none at all. In the Duty Comparison tables, any time spent figures below 5% are treated in this way, while in the Task Comparison tables, no time spent values below 1% are displayed.

#### IV. COMMENTS ON TOTAL SAMPLE GRP001

##### Branch Diagram and Background Information (Table 3)

Late in the clustering process, 1,936 of the original 1,983 members were grouped into three job type clusters (GRP012, GRP019, GRP037), two job type subclusters (GRP053, GRP021), and two independent job types (GRP031, GRP818). Table 3 shows that the average job of the Inventory GRP053 Subcluster is more similar to the Supervisors and Specialists GRP037 Cluster than to any other, particularly after GRP037 has been "watered down" by absorbing 18 cases which were

TABLE 3. BRANCH DIAGRAM -- SAMPLE II



Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

not very similar to the first 611. Hence, these groups merge first. Next most similar is GRP021, which merges next, and so on. Punch Card Accounting Operators (PCAM) GRP818, is the group whose job is least like the average 645X0/647X0 job; however, the final 9 and 13 isolates have even more unique jobs.

The tabulated background information shows that, while the total sample consists of almost equal numbers from the two career ladders AFSCs 645X0 and 647X0, the major job clusters contain members from both AFSCs, but not in equal numbers. The biggest cluster, Warehousing and Supply GRP019, which is essentially a 647X0 field, contains about 15% 645X0 members, while the main 645X0 work areas, clustering as GRP037 and GRP012, contain about 20% and 10% 647X0 members, respectively. The job types of these members who appear to be working outside their AFSC are discussed later in this report. The two job types which occur in the GRP001 Branch Diagram each contain members of only one AFSC.

The average grade tabulation shows that the large Warehousing and Supply GRP019 Cluster has a lower than average grade level, while the Supervisors and Specialists GRP037 Cluster has a relatively high average grade of 5.7. GRP037 contains many members who have clustered because of the similarity of their supervisory duties, independent of whether they are supervising a 645X0 or a 647X0 work area, and so this high average grade is not unexpected. However, far from all the 647X0 supervisors are clustered in GRP037. As will be seen later, each of the main work areas in cluster GRP019 has its own group of supervisors, who, because they perform enough of the normal work tasks, cluster with the workers in GRP019 rather than with the supervisors in GRP037. This is not so for the 645X0 clusters GRP012 and GRP021 which consist only of workers, the supervisory element being in GRP037. The average grade for all 645X0 members in the total sample is 4.9, while that of the 647X0 members is 4.2.

The Time in Duty Air Force Specialty (Time in DAFS) data show that the Supervisors and Specialists GRP037, and the Supply Inspectors GRP031, average 7 through 9 years experience, while the average worker in the other groups has 2 through 4 years experience in DAFS. The number of tasks performed increases with grade and experience, as does the number of subordinates supervised.

The number of tasks accounting for the various percentages of the group's work time shows the highly specialized role of the PCAM Operator GRP818 as a contrast to the way in which the more senior grades of airmen are expected to be able to perform a far wider range of tasks as a normal part of their work.

#### Duty and Task Comparison Tables (Tables 4 and 5)

Table 4 gives a broad-brush picture of the importance of the managerial Duties A through D in these job groups, especially Duty B, Directing and Implementing, which occupies 60% of the members in the total sample GRP001 for 12% of their time. It further shows the main duties with which each cluster is concerned; e.g., the Warehousing and Supply GRP019 Cluster concentrates heavily on receiving, issuing and delivering supplies and equipment (Duties S, W, and X, respectively), with some time devoted to supervision (Duty B) as mentioned earlier. However, since a member is credited with performing a duty if he performs any single task in that duty, comparisons of job types by duties alone are only general guides and can be misleading if used in isolation. A more detailed picture is revealed by task comparisons.

Before examining Table 5, it should be noted that GRP012 concentrates mainly on Duties G and I, hence its name; however, Table 7 reveals a number of distinct job types within each of these duties for GRP012; i.e., each main duty in Table 4 indicates a subcluster of job types. This trait occurs in both the other clusters (GRP019, GRP037) and a parallel situation, between subclusters and job types, exists for subclusters GRP053 and GRP021.

Table 5 shows that the more important tasks for each group are essentially unique to that group, with the exception of the somewhat nebulous task B2 "Coordinate with other sections or agencies." The Table also illustrates the variation in the amount of participation the various clusters have in their main tasks. For the heterogeneous cluster GRP019, the main task W24 "Place property in warehouse bins, racks or bays" is done by only half the members, and the group average on it only about 2% of their work time, while for the homogeneous job type GRP818, every group member spends about 20% of his time on each of the three main tasks.

The heterogeneous nature of the sample GRP001 is shown by the fact that only one task,

TABLE 4. DUTY COMPARISON OF GRP001 -- TOTAL SAMPLE

| DUTY  | GROUP NO<br>N | 1983   |        | 1986   |       | 1988    |        | 1990   |       | 1993  |       | 1995  |         |
|---|---------------|--------|--------|--------|-------|---------|--------|--------|-------|-------|-------|-------|---------|
|   |               | 001    | 012    | 019    | 053   | 037     | 021    | 031    | 818   | 10    | 53    | 53    | 10      |
| A ORGANIZING AND PLANNING   |               | 53(1)  | 53(1)  | 53(1)  | 53(1) | 53(1)   | 53(1)  | 53(1)  | 53(1) | 53(1) | 53(1) | 53(1) | 53(1)   |
| B DIRECTING AND IMPLEMENTING  |               | 44(5)  | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| C INSPECTING AND EVALUATING   |               | 60(12) | 45(8)  | 43(5)  | 56(7) | 79(11)  | —      | —      | —     | —     | —     | —     | 50(7)   |
| D TRAINING  |               | 46(5)  | —      | —      | —     | 94(24)  | 64(8)  | —      | —     | —     | —     | —     | —       |
| E INVENTORIING EQUIPMENT AND SUPPLIES                                 |               | —      | —      | —      | —     | 80(11)  | —      | —      | —     | —     | —     | —     | —       |
| F PERFORMING STANDARDIZATION, AND SURVEILLANCE FUNCTIONS              |               | 44(7)  | —      | —      | 45(5) | 100(72) | —      | —      | —     | —     | —     | —     | —       |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                |               | 37(6)  | 60(28) | —      | —     | —       | 51(5)  | —      | —     | —     | —     | —     | 50(15)  |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                |               | 29(5)  | 32(6)  | —      | —     | —       | 47(5)  | —      | —     | —     | —     | —     | —       |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            |               | 33(5)  | 41(17) | —      | —     | —       | 48(12) | —      | —     | —     | —     | —     | —       |
| J PERFORMING EQUIPMENT REVIEW, AND AUTHORIZATION FUNCTIONS            |               | —      | —      | —      | —     | —       | —      | 99(48) | —     | —     | —     | —     | —       |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| L PERFORMING FUNDS MANAGEMENT FUNCTIONS                               |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | 100(60) |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| O PERFORMING MATERIAL CONTROL FUNCTIONS                               |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| Q PREPARING MUNITIONS REPORTS, AND DOCUMENTS                          |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| R PERFORMING REDISTRIBUTION, AND MARKETING ACTIVITIES                 |               | 35(10) | —      | 56(21) | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| S RECEIVING PROPERTY  |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   |               | —      | 35(6)  | —      | —     | —       | —      | —      | 55(7) | —     | —     | —     | —       |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               |               | —      | 35(8)  | —      | —     | —       | —      | —      | —     | —     | —     | 51(5) | —       |
| V RESEARCHING PUBLICATIONS AND FILES                                  |               | —      | —      | —      | —     | —       | —      | —      | —     | —     | —     | —     | —       |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT |               | 40(13) | —      | 63(27) | —     | —       | —      | —      | —     | —     | —     | —     | 20(7)   |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   |               | 34(8)  | —      | 57(18) | —     | —       | —      | —      | —     | —     | —     | —     | —       |

TABLE 5. TASK COMPARISON OF GRP001 -- TOTAL SAMPLE

| Line<br>No. | TASK TITLE      | GROUP NO<br>N  | 001<br>1983 |        |        | 012<br>231 |        |        | 019<br>868 |        |        | 053<br>90 |        |        | 037<br>611 |        |        | 021<br>73 |        |        | 031<br>53 |        |        | 818<br>10 |  |  |
|-------------|-----------------|--|-------------|--------|--------|------------|--------|--------|------------|--------|--------|-----------|--------|--------|------------|--------|--------|-----------|--------|--------|-----------|--------|--------|-----------|--|--|
|             |                 |  | ZN(ZT)      | ZN(ZT) | ZN(ZT) | ZN(ZT)     | ZN(ZT) | ZN(ZT) | ZN(ZT)     | ZN(ZT) | ZN(ZT) | ZN(ZT)    | ZN(ZT) | ZN(ZT) | ZN(ZT)     | ZN(ZT) | ZN(ZT) | ZN(ZT)    | ZN(ZT) | ZN(ZT) | ZN(ZT)    | ZN(ZT) | ZN(ZT) | ZN(ZT)    |  |  |
| 1           | B2              | COORDINATE WITH OTHER SECTIONS OR AGENCIES                 | 44(2)       | 21(2)  | -      | -          | -      | -      | 42(1)      | 83(3)  | 4,3(2) | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | 10(2)     |  |  |
| 2           | C29             | WRITE AIRMEN PERFORMANCE REPORTS                           | 30(1)       | -      | -      | -          | -      | -      | -          | 63(2)  | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 3           | B3              | COUNSEL SUBORDINATES                                       | 30(1)       | -      | -      | -          | -      | -      | -          | 63(2)  | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 4           | M5              | OPERATE REMOTE KEYBOARD PRINTERS                           | 22(1)       | 39(5)  | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 5           | G13             | MAINTAIN DOCUMENT AND SUPPORT FILES                        | -           | 26(3)  | -      | -          | -      | -      | -          | 35(3)  | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 6           | X6              | DRIVE CAR OR PICKUP TRUCK                                  | 20(1)       | -      | 50(2)  | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 7           | W24             | PLACE PROPERTY IN WAREHOUSE BINS, RACKS, OR BAYS           | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 8           | E10             | COUNT PROPERTY   | -           | -      | -      | -          | -      | -      | -          | 90(6)  | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 9           | E5              | CONDUCT SPECIAL INVENTORIES                                | -           | -      | -      | -          | -      | -      | -          | 85(5)  | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 10          | E28             | RESEARCH INVENTORY DISCREPANCIES                           | -           | -      | -      | -          | -      | -      | -          | 82(5)  | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 11          | B4              | DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES              | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 12          | B11             | DRAFT CORRESPONDENCE                                       | -           | -      | -      | -          | -      | -      | -          | -      | 66(2)  | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 13          | J9              | MAINTAIN SUSPENSE FILE OF AF FORMS 601A AND 601B           | -           | -      | -      | -          | -      | -      | -          | -      | 66(5)  | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 14          | J1              | COMPLETE CUSTODIAN REQUEST RECEIPTS AF FORM 601B           | -           | -      | -      | -          | -      | -      | -          | -      | 76(5)  | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 15          | T28             | PREPARE LABELS OR TAGS FOR PROPERTY                        | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 16          | a <sub>T1</sub> | COMPARE IDENTITY OF PROPERTY WITH INFORMATION IN DOCUMENTS | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 17          | T17             | IDENTIFY PROPERTY USING SUPPLY OR TECHNICAL PUBLICATIONS   | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | -         |  |  |
| 18          | M1              | OPERATE CARD SORTERS                                       | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | 100(22)   |  |  |
| 19          | M2              | OPERATE INTERPRETERS                                       | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | 100(19)   |  |  |
| 20          | M3              | OPERATE KEYPUNCH MACHINES                                  | -           | -      | -      | -          | -      | -      | -          | -      | -      | -         | -      | -      | -          | -      | -      | -         | -      | -      | -         | -      | -      | 100(17)   |  |  |

<sup>a</sup>Shortened when necessary.

B2 "Coordinate with other sections or agencies," is done by more than 40% of the members, and even this task takes less than 2% of the group's available work time. Only two other tasks, C29 "Write airmen performance reports," and B3 "Counsel subordinates," were done by more than 30%, and then for less than 1% of their work time. These three tasks are common to most Air Force Specialties (AFS); The most time consuming 645X0/647X0 tasks were X6 "Drive car or pickup truck" and M5 "Operate remote keyboard printers," on which an average of about 20% of the sample were employed for about 1% of their work time.

#### V. COMMENTS ON ITEM ACCOUNTING AND MAINTENANCE SUPPORT GRP012 CLUSTER

Table 6 shows that this cluster of 231 members contains two subclusters (as was suggested by Table 4) each containing four job type groups. These job types contain only slightly over half of the original 231 members, the rest being isolates. Seven of the eight job types are manned almost wholly with 645X0 members, but the Remote Terminal Operator GRP251, a 647X0 job, is also part of this cluster.

Table 7 shows that membership in the Item Accounting or Maintenance Support GRP012 subcluster is dependent on performance of Duty G or I, respectively, hence the subcluster name. Table 8 shows GRP808, GRP219, and GRP283 perform several common tasks (M5, V1, V2, G33, G37), while GRP740, GRP220, and GRP153 have in common, to a lesser extent, tasks I15, I19, I14, and I28, confirming the clusters. However, the tasks underlined on Table 8 show essential differences between the eight job types in the cluster, and provide justification for not reducing the number of reported job types. For example, Catalog Research GRP808 and Stock Number Unit Directory/Catalog Research GRP219 are very similar in many respects, both on background variables such as DAFSC and grade, duty variables (every member of both groups spends much of his work time on Duty G), and task variables (G33, G37). The decision to report them as separate job types, instead of combining them, was governed in part by differences in their background variables; e.g., time in DAFSC and number supervised, in part by differences in their duties; e.g., Duty W, and in part by differences in tasks performed; e.g., average number of tasks performed, performance of specific tasks, V1, V2, G16, G12, etc.. This selection process is the one referred to in the

introduction to this report. Subjective selection processes such as this were repeated not only for the job types reported, but also in making the decision to reject other groups as distinct, separate job types.

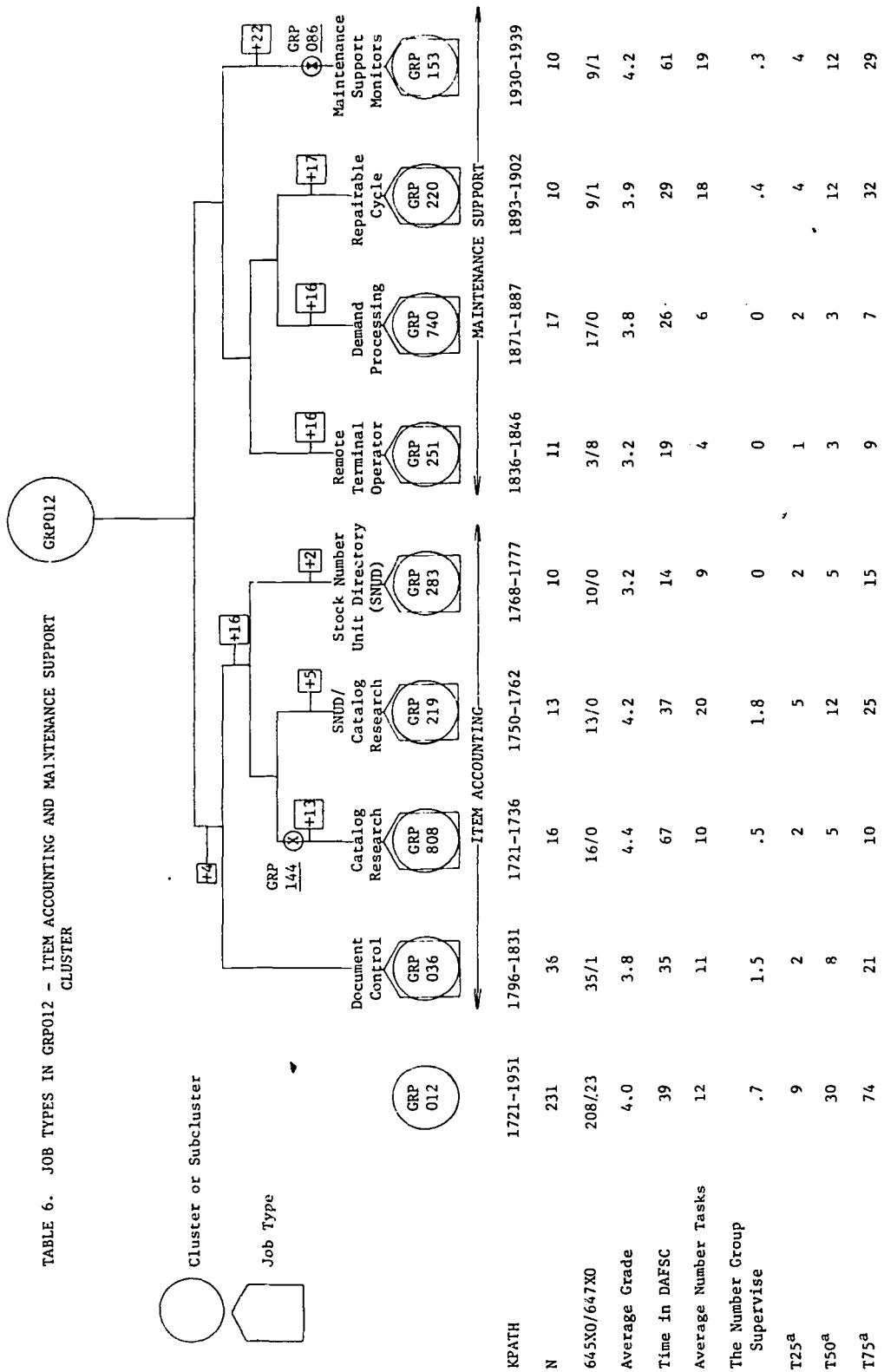
#### VI. COMMENTS ON WAREHOUSE AND SUPPLY GRP019 CLUSTER

For convenience in presentation, the job types which constitute the Warehouse and Supply GRP019 Cluster are reported under the three subclusters suggested by Table 4. Tables 9 through 11, 12 through 14, 15 through 17 and 18 through 20 show the branch diagrams, duty comparisons and task comparisons for the main cluster (GRP019) and its 3 subclusters GRP028, GRP029 and GRP030 respectively. In all, 19 job types were identified in the cluster. While the jobs in the area are manned, in the main, by Materiel Facilities 647X0 personnel, both the Delivery GRP028 and the Issuing GRP029 Subclusters have about 20% 645X0 personnel. These are concentrated in the Bench Stock GRP104 Job Type in the Delivery GRP028 Subcluster, and in the Individual Equipment/Tool Issue GRP149, GRP146, and GRP308 and the Issue/Receipt Documents GRP275 Job Types in the Issuing GRP029 Subcluster. The average grade is constant for the three subclusters, but within each subcluster there is at least one supervisory job type with a grade of E5 through E6, a higher than average number of months of service in DAFS, and an above average number of tasks performed.

The Delivery GRP028 Subcluster has within it a large group of airmen who are employed almost exclusively as Pickup and Delivery Drivers GRP747 ( $N=97$ ). A measure of their degree of specialization is obtained from the tabulation of the number of tasks performed in 25%, 50%, and 75% of their work time. This 97 man group (GRP747) spends 75% of its time on only 7 tasks. Four of the five remaining groups in the subcluster also do a lot of delivery driving, but in each case (Table 13) they devote a significant portion of their time to another duty; e.g., GRP770, to Duty S "Receiving Property." The remaining job type Bench Stock GRP104, is not much involved with Delivery GRP028, but is closely related by Duty I Bench Stock tasks (I8, I3, etc.) to Bench Stock Delivery GRP368, and thence to the subcluster.

Within the Issuing GRP029 Subcluster, three further subclusters were identified containing between them a total of ten job types. Three groups, GRP149, GRP146, and GRP308,

TABLE 6. JOB TYPES IN GRP012 - ITEM ACCOUNTING AND MAINTENANCE SUPPORT CLUSTER



<sup>a</sup>Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 7. DUTY COMPARISON OF GRP012 -- ITEM ACCOUNTING AND MAINTENANCE SUPPORT CLUSTER

| DUTY  | GROUP NO<br>N          | 012<br>231                |                            | 036<br>36                     |                            | 808<br>16               |                      | 219<br>13            |                      | 283<br>10            |                      | 251<br>11            |                      | 740<br>17            |                      | 220<br>10            |                      | 153<br>10            |   |
|---|------------------------|---------------------------|----------------------------|-------------------------------|----------------------------|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---|
|   |                        | ZN(X1)                    | ZN(X1)                     | ZN(X1)                        | ZN(X1)                     | ZN(X1)                  | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               | ZN(X1)               |   |
| A ORGANIZING AND PLANNING   | -                      | 45(8)                     | 44(6)                      | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| B DIRECTING AND IMPLEMENTING  | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| C INSPECTING AND EVALUATING   | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| D TRAINING  | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| E INVENTORYING EQUIPMENT AND SUPPLIES                                 | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS               | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                | 60(28)<br><u>32(6)</u> | <u>97(66)</u><br><u>-</u> | <u>100(53)</u><br><u>-</u> | <u>100(73)</u><br><u>-</u>    | <u>80(34)</u><br><u>-</u>  | <u>-</u><br><u>-</u>    | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> | <u>-</u><br><u>-</u> |   |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                | 41(17)                 | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS             | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| L PERFORMING FUNDS MANAGEMENT FUNCTIONS                               | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                | 42(7)                  | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| O PERFORMING MATERIEL CONTROL FUNCTIONS                               | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| Q PREPARING MENTIONED REPORTS AND DOCUMENTS                           | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| R PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES                  | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| S RECEIVING PROPERTY  | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               | 35(6)<br><u>35(8)</u>  | 39(11)<br><u>-</u>        | <u>-</u><br><u>100(32)</u> | <u>46(6)</u><br><u>50(11)</u> | <u>100(28)</u><br><u>-</u> | <u>9(5)</u><br><u>-</u> | <u>-</u><br><u>-</u> |   |
| V RESEARCHING PUBLICATIONS AND FILES                                  | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   | -                      | -                         | -                          | -                             | -                          | -                       | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    | - |

TABLE 8. TASK COMPARISON OF GRP012 -- ITEM ACCOUNTING AND MAINTENANCE SUPPORT CLUSTER

| Line<br>No. | TASK TITLE  | GROUP NO<br>N | 012    |         | 036    |         | 080     |        | 219    |        | 283    |        | 251    |        | 740    |        | 220    |        | 153    |  |
|-------------|---|---------------|--------|---------|--------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|             |   |               | ZN(ZT) | ZN(ZT)  | ZN(ZT) | ZN(ZT)  | ZN(ZT)  | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) |  |
| 1           | M5 OPERATE REMOTE KEYBOARD PRINTERS                             | 19(5)         | -      | 50(3)   | 38(2)  | 90(13)  | 100(32) | -      | 40(3)  | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 2           | G13 MAINTAIN DOCUMENT AND SUPPORT FILES                         | 26(3)         | 89(14) | -       | 53(2)  | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 3           | G27 PERFORM QUALITY CONTROL ON ACCOUNTABLE DOCUMENTS            | 17(2)         | 81(10) | 5(1)    | -      | 10(1)   | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 4           | G7 IDENTIFY DELINQUENT DOCUMENTS                                | 16(2)         | 75(8)  | -       | -      | 38(2)   | 40(3)   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 5           | aV1 RESEARCH CATALOGS OR PUBLICATIONS FOR ITEM IDENTIFICATION   | 26(3)         | -      | 100(12) | 38(2)  | 40(3)   | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 6           | aV2 RESEARCH CATALOGS OR PUBLICATIONS FOR SUPPLY SOURCES        | 21(2)         | -      | 100(12) | 31(1)  | 20(2)   | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 7           | aG33 PREPARE INPUTS TO LOAD, CHANGE OR DELETE RECORDS           | 22(2)         | -      | 38(11)  | 85(5)  | 70(7)   | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 8           | G37 RESEARCH INPUTS THAT HAVE REJECTED                          | 29(3)         | 22(2)  | 29(11)  | 85(5)  | 40(3)   | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 9           | G16 MAINTAIN INTERNAL ITEM RECORDS CURRENT BY POSTING IN SNRD   | -             | -      | 77(6)   | 20(1)  | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 10          | G12 MAINTAIN COMPUTER INPUT SUSPENSE FILE                       | -             | 14(1)  | -       | 85(5)  | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 11          | U18 MAINTAIN STOCK NUMBER DIRECTORY                             | 15(1)         | 11(1)  | -       | -      | 100(18) | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 12          | U20 MAINTAIN SUSPENSE FILES                                     | 12(1)         | 22(2)  | -       | -      | 70(9)   | 9(5)    | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 13          | I15 OPERATE RADIO, PHONE, INTERCOM OR TELETYPE EQUIPMENT        | 20(2)         | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 14          | I19 PREPARE ISSUE INPUTS FOR COMPUTER PROCESSING                | 20(2)         | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 15          | aI14 OBTAIN VERIFICATION OF PRIORITY ON REQUESTS FOR ITEMS NAFI | 13(2)         | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 16          | I28 VERIFY DELIVERY PRIORITY AND URGENCY OF NEED DESIGNATORS    | 12(1)         | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 17          | I18 PREPARE INPUTS TO UPDATE DIFM DETAIL RECORDS                | -             | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 18          | I11 MAINTAIN SURVEILLANCE OF DIFM ITEMS                         | 13(1)         | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 19          | I22 PREPARE TURN-IN DOCUMENTS FOR DIFM ITEMS                    | 13(1)         | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 20          | O12 VERIFY OR MONITOR NORS REQUIREMENTS                         | -             | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |
| 21          | O5 PREPARE CANNIBALIZATION RECORDS                              | -             | -      | -       | -      | -       | -       | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |  |

<sup>a</sup>Shortened when necessary.

TABLE 9. JOB TYPE SUBCLUSTERS IN GRP019 - WAREHOUSING AND SUPPLY CLUSTER

|                            | KPATH     | GRP019    | GRP028    | GRP029    | GRP030 |
|----------------------------|-----------|-----------|-----------|-----------|--------|
| N                          | 0793-1660 | 1448-1660 | 0793-1242 | 1243-1447 |        |
| 645X0/647X0                | 868       | 213       | 450       | 205       |        |
| Average Grade              | 128/738   | 38/174    | 84/365    | 6/199     |        |
| Time in DAFSC              | 3.9       | 3.8       | 3.9       | 3.9       |        |
| Average Number Tasks       | 43.5      | 35.3      | 44.4      | 49.8      |        |
| The Number Group Supervise | 29        | 15        | 37        | 25.9      |        |
| T25 <sup>a</sup>           | 1.3       | 1.4       | 1.3       | 1.3       |        |
| T50 <sup>a</sup>           | 13        | 3         | 10        | 6         |        |
| T75 <sup>a</sup>           | 37        | 9         | 33        | 13        |        |
|                            | 84        | 26        | 88        | 30        |        |

<sup>a</sup>Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 10. DUTY COMPARISON OF GRP019 -- WAREHOUSING AND SUPPLY CLUSTER

| DUTY | GROUP NO<br>N | 019    |        | 028    |        | 029    |        | 030 |  |
|------|---------------|--------|--------|--------|--------|--------|--------|-----|--|
|      |               | 868    | 213    | 450    | 450    | 205    | 205    |     |  |
|      |               | %N(%)T | %N(%)T | %N(%)T | %N(%)T | %N(%)T | %N(%)T |     |  |
| A    |               |        |        |        |        |        |        |     |  |
| B    |               |        |        |        |        |        |        |     |  |
| C    |               |        |        |        |        |        |        |     |  |
| D    |               |        |        |        |        |        |        |     |  |
| E    |               |        |        |        |        |        |        |     |  |
| F    |               |        |        |        |        |        |        |     |  |
| G    |               |        |        |        |        |        |        |     |  |
| H    |               |        |        |        |        |        |        |     |  |
| I    |               |        |        |        |        |        |        |     |  |
| J    |               |        |        |        |        |        |        |     |  |
| K    |               |        |        |        |        |        |        |     |  |
| L    |               |        |        |        |        |        |        |     |  |
| M    |               |        |        |        |        |        |        |     |  |
| N    |               |        |        |        |        |        |        |     |  |
| O    |               |        |        |        |        |        |        |     |  |
| P    |               |        |        |        |        |        |        |     |  |
| Q    |               |        |        |        |        |        |        |     |  |
| R    |               |        |        |        |        |        |        |     |  |
| S    |               |        |        |        |        |        |        |     |  |
| T    |               |        |        |        |        |        |        |     |  |
| U    |               |        |        |        |        |        |        |     |  |
| V    |               |        |        |        |        |        |        |     |  |
| W    |               |        |        |        |        |        |        |     |  |
| X    |               |        |        |        |        |        |        |     |  |

TABLE 11. TASK COMPARISON OF GRP 019 -- WAREHOUSING AND SUPPLY CLUSTER

| Line<br>No. | TASK<br>TITLE  | GROUP NO<br>N | 019   |       |       | 028   |       |     | 029     |         |         | 030     |         |         |
|-------------|--|---------------|-------|-------|-------|-------|-------|-----|---------|---------|---------|---------|---------|---------|
|             |  |               | 868   | 213   | 450   | 205   | 205   | 205 | %N (%T) |
| 1           | X6 DRIVE CAR OR PICKUP TRUCK                                     |               |       |       |       | 35(3) | 83(9) | -   | -       | -       | -       | -       | -       | -       |
| 2           | W24 PLACE PROPERTY IN WAREHOUSE BINS, RACKS OR BAYS              |               | 50(2) | -     |       | 87(4) |       |     |         |         |         |         |         |         |
| 3           | X3 DELIVER PROPERTY ITEMS  |               | 30(2) | 87(9) |       | -     |       |     |         |         |         |         |         |         |
| 4           | X13 PICKUP PROPERTY  |               | 28(2) | 75(7) |       | -     |       |     |         |         |         |         |         |         |
| 5           | aX10 OBTAIN AUTHORIZED REPRESENTATIVE SIGNATURES FOR EQUIPMENT   |               | 27(2) | 70(7) |       | -     |       |     |         |         |         |         |         |         |
| 6           | X11 OPERATE MATERIEL HANDLING EQUIPMENT                          |               | 42(2) | 72(7) | 37(1) | -     |       |     |         |         |         |         |         |         |
| 7           | W27 PREPARE OR CORRECT BIN LABELS                                |               | 38(2) | -     | 72(3) | -     |       |     |         |         |         |         |         |         |
| 8           | aS2 COMPARE PHYSICAL COUNT WITH INFORMATION IN RECEIPT DOCUMENTS |               | 38(2) | -     |       | -     |       |     |         |         |         |         |         |         |
| 9           | S10 MOVE PROPERTY TO AREAS SUCH AS DELIVERY OR STORAGE           |               | 33(2) | -     |       | -     |       |     |         |         |         |         |         |         |
| 10          | S5 ENTER INFORMATION ON RECEIVING DOCUMENTS                      |               | 27(1) | -     |       | -     |       |     |         |         |         |         |         |         |
| 11          | S15 PREPARE PROPERTY FOR INCHECKING                              |               | 24(1) | -     |       | -     |       |     |         |         |         |         |         |         |

<sup>a</sup> Shortened when necessary.

TABLE 12. JOB TYPES IN GRP028 - DELIVERY SUBCLUSTER

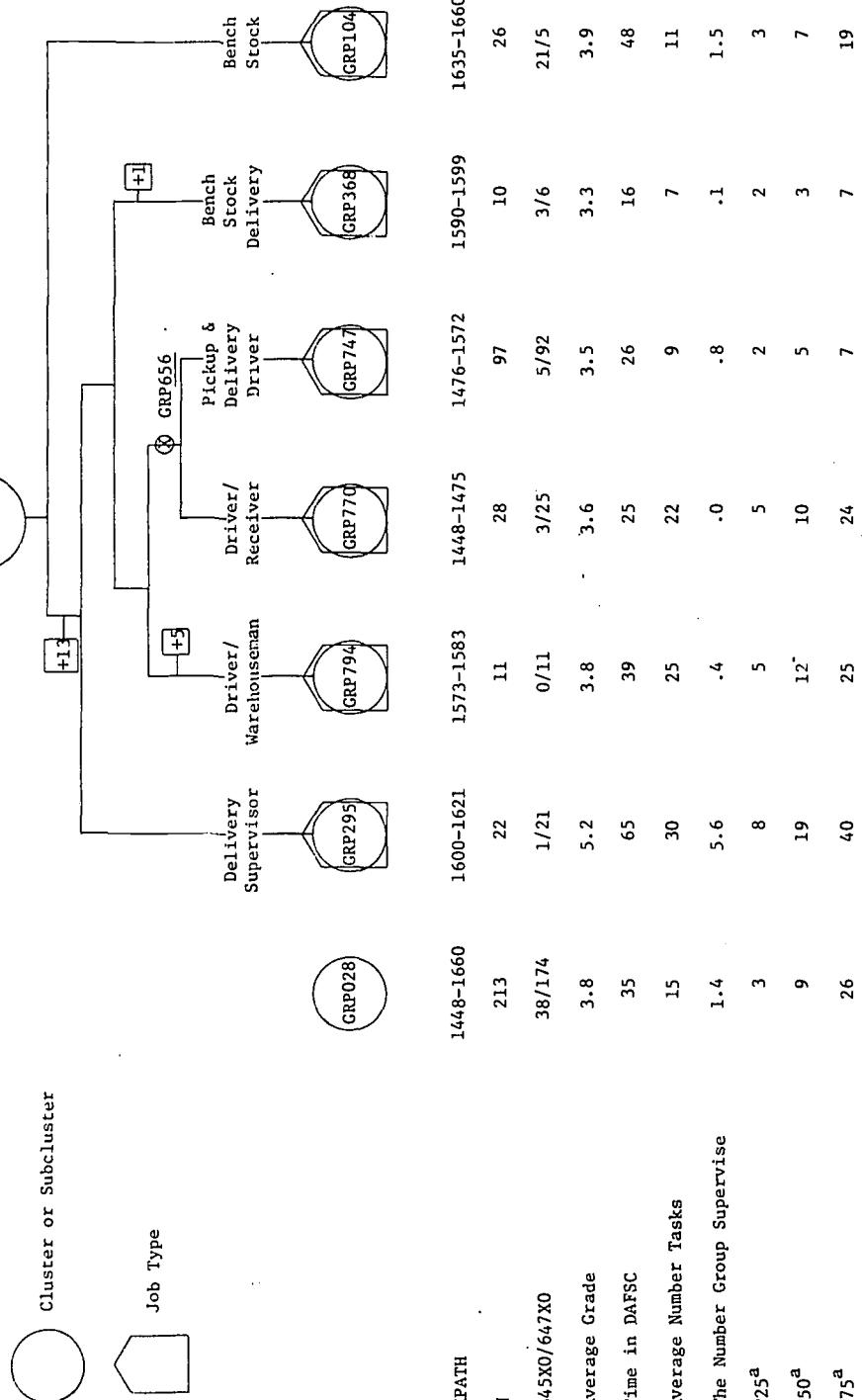


TABLE 13. DUTY COMPARISON OF GRP028 -- DELIVERY SUBCLUSTER

| DUTY  | GROUP NO<br>N | 028<br>213 |          | 295<br>22 |          | 794<br>11 |          | 770<br>28 |          | 747<br>.97 |          | 368<br>10 |          | 104<br>26 |          |
|---|---------------|------------|----------|-----------|----------|-----------|----------|-----------|----------|------------|----------|-----------|----------|-----------|----------|
|   |               | ZN((21))   | ZN((c1)) | ZS((21))  | ZS((c1)) | ZS((21))  | ZS((c1)) | ZS((21))  | ZS((c1)) | ZS((21))   | ZS((c1)) | ZS((21))  | ZS((c1)) | ZS((21))  | ZS((c1)) |
| A ORGANIZING AND PLANNING   | -             | -          | 82(13)   | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| B DIRECTING AND IMPLEMENTING  | 32(6)         | 100(27)    | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| C INSPECTING AND EVALUATING   | -             | 86(6)      | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| D TRAINING  | -             | 77(6)      | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| E INVENTORYING EQUIPMENT AND SUPPLIES                                 | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS               | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            | 33(10)        | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS             | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| L PERFORMING FUNDS MANAGEMENT FUNCTIONS                               | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| O PERFORMING MATERIEL CONTROL FUNCTIONS                               | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| Q PERFORMING MUNITIONS REPORTS AND DOCUMENTS                          | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| R PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES                  | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| S RECEIVING PROPERTY  | 27(5)         | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| V RESEARCHING PUBLICATIONS AND FILES                                  | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT | -             | -          | -        | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   | 26(5)         | -          | 100(37)  | -         | -        | -         | -        | -         | -        | -          | -        | -         | -        | -         | -        |
|   | 92(63)        | 100(34)    | 100(47)  | 100(54)   | 100(59)  | 100(59)   | 38(9)    |           |          |            |          |           |          |           |          |

TABLE 14. TASK COMPARISON OF GRP028 -- DELIVERY SUBCLUSTER

| Line<br>No. | TASK TITLE  | GROUP NO<br>N | 028   |      | 213   |      | 295    |      | 794    |      | 770    |      | 747    |      | 368    |      | 104 |      |
|-------------|---|---------------|-------|------|-------|------|--------|------|--------|------|--------|------|--------|------|--------|------|-----|------|
|             |   |               | %N    | (%T) | %N    | (%T) | %N     | (%T) | %N     | (%T) | %N     | (%T) | %N     | (%T) | %N     | (%T) | %N  | (%T) |
| 1           | X6 DRIVE CAR OR PICKUP TRUCK  |               | 83(9) |      | 91(4) |      | 100(5) |      | 96(6)  |      | 92(13) |      | 90(18) |      | 26(2)  |      |     |      |
| 2           | X3 DELIVER PROPERTY ITEMS   |               | 87(9) |      | 91(3) |      | 100(6) |      | 100(6) |      | 96(13) |      | 90(20) |      | 30(2)  |      |     |      |
| 3           | X13 PICKUP PROPERTY   |               | 75(7) |      | 86(3) |      | 100(5) |      | 96(6)  |      | 96(13) |      | 90(20) |      | 31(2)  |      |     |      |
| 4           | aX10 OBTAIN AUTHORIZED SIGNATURES FOR EQUIPMENT                     |               | 70(7) |      | 82(3) |      | 32(4)  |      | 92(5)  |      | 79(10) |      | 40(6)  |      | -      |      |     |      |
| 5           | X11 OPERATE MATERIAL HANDLING EQUIPMENT                             |               | 72(7) |      | 91(3) |      | 82(4)  |      | 100(6) |      | 80(10) |      | 10(1)  |      | -      |      |     |      |
| 6           | X1 ARRANGE FOR ADDITIONAL VEHICLE SUPPORT                           |               | 35(2) |      | 91(3) |      | 45(2)  |      | 57(3)  |      | 27(2)  |      | 10(1)  |      | -      |      |     |      |
| 7           | B36 SUPERVISE USE OF MATERIELS HANDLING EQUIPMENT                   |               | -     |      | 86(3) |      | -      |      | -      |      | -      |      | -      |      | -      |      |     |      |
| 8           | X4 DELIVER PARTS ACCESSORIES OR EQUIPMENT TO AIRCRAFT               |               | 65(6) |      | 59(2) |      | 100(6) |      | 75(4)  |      | 81(9)  |      | 40(5)  |      | -      |      |     |      |
| 9           | X9 MOVE PROPERTY TO TRANSPORTATION                                  |               | 66(5) |      | 77(2) |      | 100(5) |      | 89(5)  |      | 79(8)  |      | 10(1)  |      | -      |      |     |      |
| 10          | I8 INVENTORY OR REPLENISH BENCH STOCKS                              |               | 15(2) |      | -     |      | -      |      | -      |      | -      |      | 70(16) |      | 88(13) |      |     |      |
| 11          | I21 PREPARE TURN-IN DOCUMENTS FOR BENCH STOCK EXCESS ACTIVITIES     |               | 13(1) |      | -     |      | -      |      | -      |      | -      |      | 80(7)  |      | 69(8)  |      |     |      |
| 12          | I3 ESTABLISH BENCH STOCKS IN COORDINATION WITH SUPPORTED ACTIVITIES |               | 13(1) |      | -     |      | -      |      | -      |      | -      |      | 30(2)  |      | 88(9)  |      |     |      |

<sup>a</sup>Shortened when necessary.

TABLE 15. JOB TYPES IN GRP029 - ISSUING SUBCLUSTER

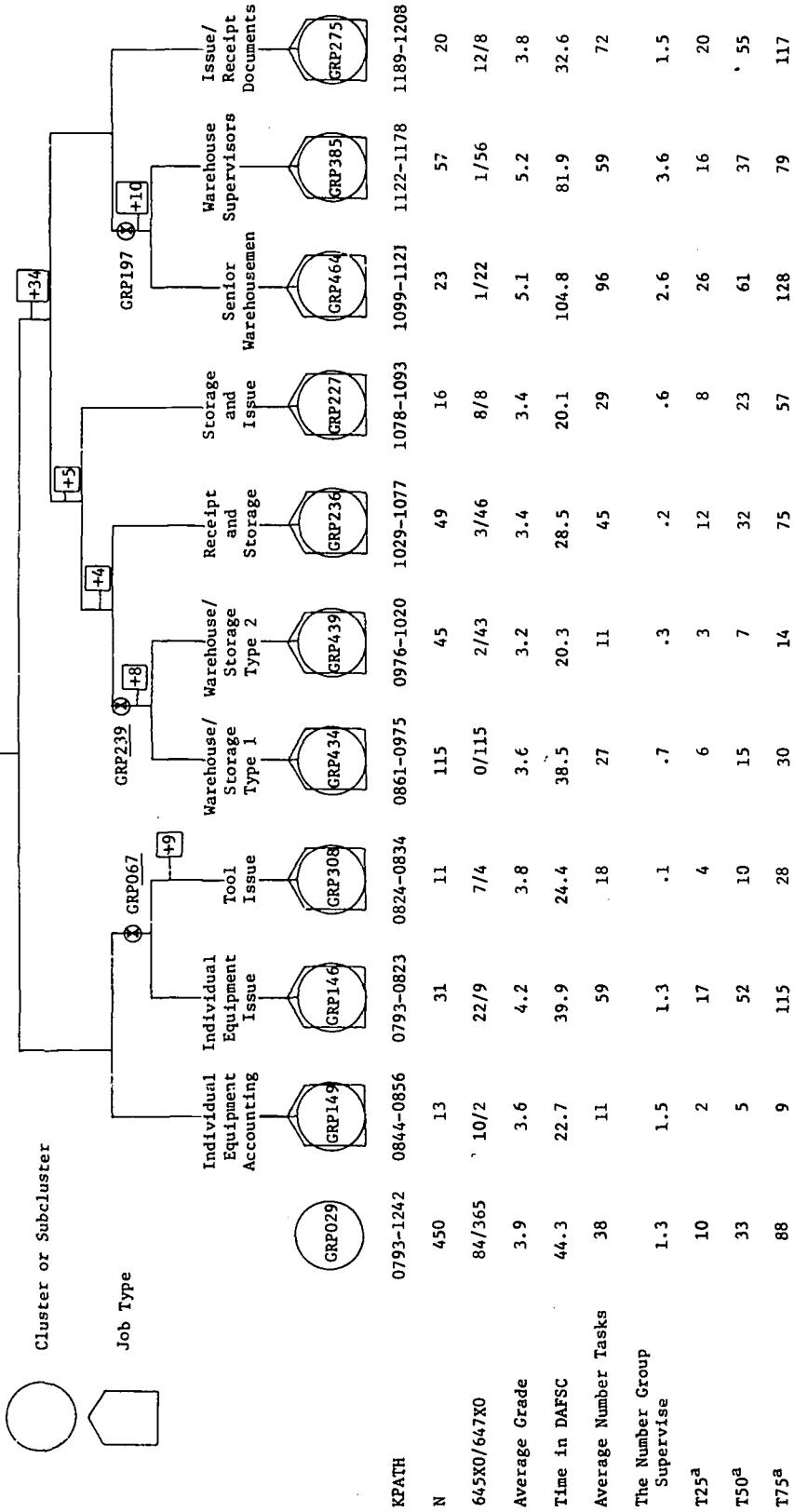


TABLE 16. DUTY COMPARISON OF GRP029 -- ISSUING SUBCLUSTER

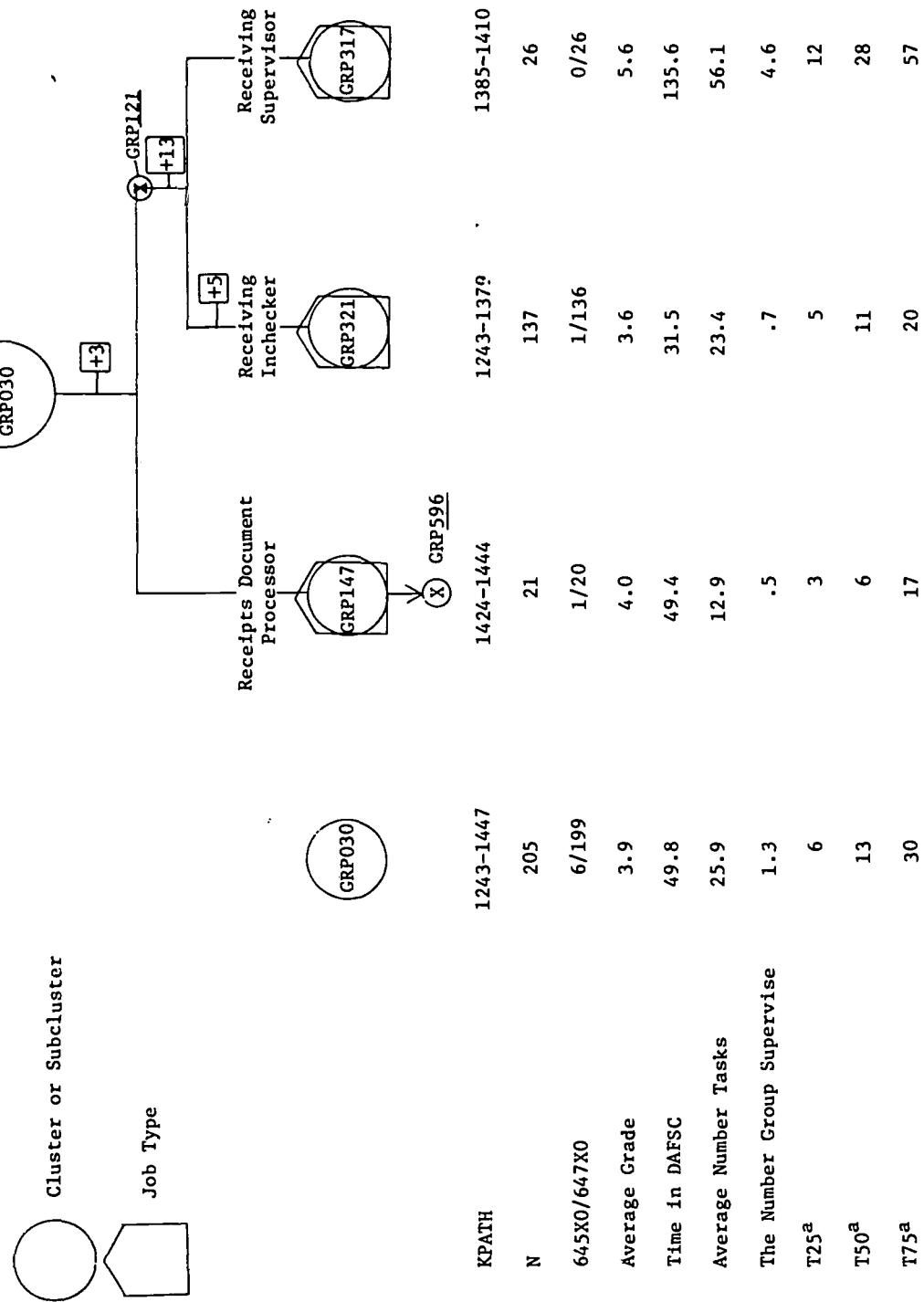
| DUTY  | GROUP NO<br>N | 029 |       | 149   |        | 146    |         | 308     |         | 434      |         | 439     |         | 236    |        | 227    |        | 464     |        | 385     |        | 275    |        |   |
|---|---------------|-----|-------|-------|--------|--------|---------|---------|---------|----------|---------|---------|---------|--------|--------|--------|--------|---------|--------|---------|--------|--------|--------|---|
|   |               | 450 | 13    | 31    | 11     | 115    | 45      | 49      | 16      | 23       | 57      | 20      | ZN(ZT)  | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT)  | ZN(ZT) | ZN(ZT)  | ZN(ZT) | ZN(ZT) | ZN(ZT) |   |
| A ORGANIZING AND PLANNING   | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| B DIRECTING AND IMPLEMENTING  | 52(6)         | -   | 80(7) | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | 91(5)  | 95(7)   | -      | -       | -      | -      | -      |   |
| C INSPECTING AND EVALUATING   | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | 62(6)  | 95(10) | 92(15)  | 95(6)  | -       | -      | -      | -      |   |
| D TRAINING  | -             | -   | -     | -     | 97(10) | 91(15) | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | 90(6)   | 85(5)  | -       | -      | -      | -      |   |
| E INVENTORYING EQUIPMENT AND SUPPLIES                                 | 67(8)         | -   | -     | -     | -      | -      | 48(5)   | -       | -       | -        | -       | -       | -       | -      | -      | 84(9)  | 87(12) | 87(9)   | 96(11) | 95(9)   | -      | -      | -      |   |
| F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS               | -             | -   | -     | -     | -      | 71(6)  | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                | -             | -   | -     | -     | -      | 77(5)  | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS             | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| L PERFORMING FLIIDS MANAGEMENT FUNCTIONS                              | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| O PERFORMING MATERIAL CONTROL FUNCTIONS                               | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| Q PREPARING MUNITIONS REPORTS AND DOCUMENTS                           | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| R PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES                  | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | 95(18) | 75(10) | 100(16) | -      | 100(15) | -      | -      | -      |   |
| S RECEIVING PROPERTY  | 50(7)         | -   | 74(9) | 45(7) | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | 91(8)  | -      | 91(8)   | -      | -       | -      | -      | -      |   |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   | -             | -   | -     | 70(5) | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| V RESEARCHING PUBLICATIONS AND FILES                                  | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT | 94(47)        | -   | -     | -     | 84(11) | 64(11) | 100(77) | 100(91) | 100(36) | 100(133) | 100(22) | 100(37) | 100(18) | -      | -      | 80(6)  | -      | 100(77) | -      | -       | -      | -      | -      | - |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   | -             | -   | -     | -     | -      | -      | -       | -       | -       | -        | -       | -       | -       | -      | -      | -      | -      | -       | -      | -       | -      | -      | -      |   |

TABLE 17. TASK COMPARISON OF GRP029 -- ISSUING SUBCLUSTER

| Line No. | Task Title | Group No  | 029<br>450 | 149<br>13 | 146<br>.11 | 308<br>11 | 434<br>15 | 439<br>45 | 236<br>49 | 227<br>16 | 464<br>23 | 385<br>57 | 275<br>20 |
|----------|------------|---|------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|          |            |   | ZN(ZT)     | ZN(ZT)    | ZN(ZT)     | ZN(ZT)    | ZN(ZT)    | ZN(ZT)    | ZN(ZT)    | ZN(ZT)    | ZN(ZT)    | ZN(ZT)    | ZN(ZT)    |
| 1        | W24        | PLACE PROPERTY IN WAREHOUSE BINS, RACKS OR BAYS               | 81(4)      | -         | 61(1)      | -         | 99(5)     | 100(1)    | 108(3)    | 100(4)    | 96(1)     | 95(2)     | 80(1)     |
| 2        | W27        | PREPARE OR CORRECT BIN LABELS                                 | 71(3)      | -         | 54(1)      | 36(2)     | 91(5)     | 84(7)     | 83(2)     | 68(3)     | 72(1)     | 78(1)     | 90(1)     |
| 3        | aN9        | MANTAIN FILES TO ACCOUNT FOR PERSONAL RETENTION OF ITEMS      | 92(1)2     | 58(1)     | 27(2)      | -         | -         | -         | -         | -         | -         | -         | -         |
| 4        | N10        | MANTAIN INDIVIDUAL CLOTHING AND EQUIPMENT RECORDS AF FORM 538 | 92(1)2     | 65(2)     | -          | -         | -         | -         | -         | -         | -         | -         | -         |
| 5        | N5         | DOCUMENT ISSUE OR TURN-IN OF PERSONAL RETENTION ITEMS         | 76(0)2     | 61(2)     | -          | -         | -         | -         | -         | -         | -         | -         | -         |
| 6        | N4         | DOCUMENT ISSUE OR TURN-IN OF ORGANIZATIONAL EQUIPMENT ITEMS   | 76(1)2     | 74(2)     | 55(4)      | -         | -         | -         | -         | -         | -         | -         | -         |
| 7        | N6         | DOCUMENT ISSUE OR TURN-IN OF TOOLS AND TOOL KITS              | 8(1)       | 74(2)     | 100(8)     | -         | -         | -         | -         | -         | -         | -         | -         |
| 8        | N15        | PROCESS INCOMING AND OUTGOING CLEARANCES                      | 85(9)      | 77(2)     | 72(5)      | -         | -         | -         | -         | -         | -         | -         | -         |
| 9        | E10        | COUNT PROPERTY  | -          | 87(2)     | 73(5)      | -         | -         | -         | -         | -         | -         | -         | -         |
| 10       | N7         | MANTAIN CUSTODY RECEIPT LISTING OF TOOL KIT TRANSACTIONS      | -          | 71(2)     | 91(7)      | -         | -         | -         | -         | -         | -         | -         | -         |
| 11       | N1         | ASSEMBLE OR ISSUE TOOL KITS                                   | -          | 68(2)     | 100(8)     | -         | -         | -         | -         | -         | -         | -         | -         |
| 12       | W18        | LOCATE ITEMS TO BE ISSUED, SHIPPED OR TRANSFERRED             | 67(3)      | -         | -          | 89(2)     | 51(5)     | 80(2)     | 75(3)     | -         | -         | -         | -         |
| 13       | W21        | MOVE PROPERTY TO PICKUP AND DELIVERY UNITS                    | 64(3)      | -         | -          | 89(4)     | 84(9)     | 69(2)     | 44(2)     | 78(1)     | 80(2)     | 80(1)     | 60(1)     |
| 14       | W23        | PLACE PROPERTY IN SPECIAL STORAGE FACILITIES                  | 64(3)      | -         | -          | -         | 82(8)     | 75(2)     | -         | -         | -         | -         | -         |
| 15       | W22        | PLACE LOCATION SYMBOLS ON STORAGE FACILITIES                  | 58(2)      | -         | -          | -         | 80(3)     | 78(1)     | -         | 44(2)     | -         | 82(2)     | -         |
| 16       | W25        | PREPARE AND INPUT WAREHOUSE LOCATION DATA                     | 66(3)      | -         | -          | 86(4)     | 67(7)     | 80(2)     | 87(3)     | -         | -         | 32(2)     | -         |
| 17       | aS2        | PREPARE PHYSICAL COUNT WITH INFORMATION IN RECEIVING DOCUMENT | -          | 48(1)     | 27(2)      | -         | -         | 67(2)     | 56(2)     | 96(1)     | -         | 85(1)     | -         |
| 18       | S6         | EXAMINE PROPERTY RECEIVED FOR DAMAGE                          | -          | -         | 27(1)      | -         | -         | -         | -         | -         | 96(1)     | -         | -         |
| 19       | X11        | OPERATE MATERIAL HANDLING EQUIPMENT                           | 37(1)      | -         | -          | 40(2)     | 8(1)      | -         | -         | -         | 91(1)     | 60(1)     | -         |
| 20       | W5         | CONDUCT RE-WAREHOUSING OR SET UP NEW WAREHOUSE                | 51(1)      | -         | -          | -         | -         | 61(1)     | -         | -         | 100(1)    | 95(2)     | -         |
| 21       | B34        | SUPERVISE SELECTION OF ITEMS FOR ISSUE                        | -          | 7(1)      | -          | -         | -         | -         | -         | -         | 65(1)     | 80(2)     | -         |
| 22       | I19        | PREPARE ISSUE INPUTS FOR COMPUTER PROCESSING                  | -          | 32(1)     | 27(2)      | -         | -         | -         | 75(3)     | -         | 80(2)     | 95(2)     | -         |
| 23       | M5         | OPERATE REMOTE KEYBOARD PRINTERS                              | 46(2)      | -         | 64(1)      | -         | 8(1)      | -         | 62(3)     | -         | -         | 90(2)     | -         |
| 24       | W26        | PREPARE ISSUE DOCUMENTS                                       | -          | -         | -          | -         | 61(2)     | 94(4)     | -         | -         | -         | 90(2)     | -         |
| 25       | S3         | COMPLETE TURN-IN DOCUMENTS                                    | -          | -         | -          | -         | -         | -         | -         | -         | -         | 95(2)     | -         |

a Shortened when necessary.

TABLE 18. JOB TYPES IN GRP030 - RECEIVING SUBCLUSTER



<sup>a</sup>Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 19. DUTY COMPARISON OF GRP030 -- RECEIVING SUBCLUSTER

| DUTY  | GROUP NO<br>N | 030    |        | 147    |        | 321     |        | 317 |  |
|---|---------------|--------|--------|--------|--------|---------|--------|-----|--|
|   |               | 205    | 21     | 137    |        | 26      |        | 26  |  |
|   |               | %N(%)T | %N(%)T | %N(%)T | %N(%)T | %N(%)T  | %N(%)T |     |  |
| A ORGANIZING AND PLANNING   |               | -      | -      | -      | -      | 92(11)  |        |     |  |
| B DIRECTING AND IMPLEMENTING  |               | -      | -      | -      | -      | 100(21) |        |     |  |
| C INSPECTING AND EVALUATING   |               | -      | -      | -      | -      | 96(6)   |        |     |  |
| D TRAINING  |               | -      | -      | -      | -      | 88(9)   |        |     |  |
| E INVENTORYING EQUIPMENT AND SUPPLIES                                 |               |        |        |        |        |         |        |     |  |
| F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS               |               |        |        |        |        |         |        |     |  |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                |               |        |        |        |        |         |        |     |  |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                |               |        |        |        |        |         |        |     |  |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            |               |        |        |        |        |         |        |     |  |
| J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS             |               |        |        |        |        |         |        |     |  |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              |               |        |        |        |        |         |        |     |  |
| L PERFORMING FUNDS MANAGEMENT FUNCTIONS                               |               |        |        |        |        |         |        |     |  |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                |               |        |        |        |        |         |        |     |  |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              |               |        |        |        |        |         |        |     |  |
| O PERFORMING MATERIAL CONTROL FUNCTIONS                               |               |        |        |        |        |         |        |     |  |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             |               |        |        |        |        |         |        |     |  |
| Q PERFORMING MUNITIONS REPORTS AND DOCUMENTS                          |               |        |        |        |        |         |        |     |  |
| R PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES                  |               |        |        |        |        |         |        |     |  |
| S RECEIVING PROPERTY  |               |        |        |        |        |         |        |     |  |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   |               |        |        |        |        |         |        |     |  |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               |               |        |        |        |        |         |        |     |  |
| V RESEARCHING PUBLICATIONS AND FILES                                  |               |        |        |        |        |         |        |     |  |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT |               |        |        |        |        |         |        |     |  |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   |               |        |        |        |        |         |        |     |  |

TABLE 20. TASK COMPARISON OF GRP030 -- RECEIVING SUBCLUSTER

| Line<br>No. | TASK TITLE   | GROUP NO<br>N | 030     |         | 147     |         | 321   |  | 317    |  |
|-------------|--|---------------|---------|---------|---------|---------|-------|--|--------|--|
|             |  |               | 205     |         | 21      |         | 137   |  | 26     |  |
|             |  |               | %N (%T) | %N (%T) | %N (%T) | %N (%T) |       |  |        |  |
| 1           | AS2 COMPARE PHYSICAL COUNT WITH INFORMATION IN RECEIVING DOCUMENTS |               | 84(5)   |         | 43(3)   |         | 93(6) |  | 92(2)  |  |
| 2           | S10 MOVE PROPERTY TO AREAS SUCH AS DELIVERY OR STORAGE             |               | 80(5)   |         | 38(2)   |         | 92(6) |  | 81(2)  |  |
| 3           | S5 ENTER INFORMATION ON RECEIVING DOCUMENTS                        |               | 82(4)   |         | 62(5)   |         | 89(5) |  | 88(2)  |  |
| 4           | S15 PREPARE PROPERTY FOR INCHECKING                                |               | 75(4)   |         | -       |         | 91(5) |  | 77(2)  |  |
| 5           | S7 FILE, UPDATE, CORRECT OR INPUT RECEIPT DUE-IN CARDS             |               | 55(3)   |         | 95(12)  |         | 53(2) |  | 73(2)  |  |
| 6           | S18 PROCESS AND CLEAR REJECTED PROPERTY                            |               | 53(3)   |         | 76(11)  |         | 50(2) |  | 92(2)  |  |
| 7           | S4 DISTRIBUTE DOCUMENTS  |               | 71(4)   |         | 81(7)   |         | -     |  | 84(2)  |  |
| 8           | M5 OPERATE REMOTE KEYBOARD PRINTERS                                |               | 37(2)   |         | 71(7)   |         | -     |  | -      |  |
| 9           | M4 OPERATE REMOTE CARD OR TAPE READERS                             |               | 25(1)   |         | 66(6)   |         | -     |  | -      |  |
| 10          | M3 OPERATE KEYPUNCH MACHINES                                       |               | 26(1)   |         | 57(6)   |         | -     |  | -      |  |
| 11          | S21 SEGREGATE INCOMING PROPERTY                                    |               | 73(4)   |         | -       |         | 86(5) |  | 70(1)  |  |
| 12          | B3 COUNSEL SUBORDINATES  |               | -       |         | -       |         | -     |  | 100(2) |  |
| 13          | S22 SELECT PROPER METHOD AND EQUIPMENT FOR MOVEMENT OF PROPERTY    |               | 73(4)   |         | -       |         | 85(5) |  | 92(2)  |  |
| 14          | C29 WRITE AIRMEN PERFORMANCE REPORTS                               |               | -       |         | -       |         | -     |  | 92(2)  |  |

<sup>a</sup>Shortened when necessary.

performed rather similar duties relating to individual equipment and tools with a high task overlap on N4 and N15. Substantial differences in the total number of tasks performed, degree of specialization, and level of participation in the tasks at lines 1 through 11 of Table 17 establish their individuality. Inspection of Table 17 shows that the second minor subcluster of four job type groups (GRP434, GRP439, GRP236, and GRP227) have in common their high level of participation in task W24, the main task for subcluster GRP029, and also W18, W21, W25, etc. They differ significantly in average number of tasks performed, also in their involvement in tasks such as W23, W22, W26, etc. The third minor subcluster (GRP646, GRP385, GRP275) consists of two groups of experienced, high average grade 647X0 personnel, and, strangely enough, a group (GRP275) of relatively inexperienced, mixed 645X0/647X0 airmen of much lower grade who do a similar job. As pointed out earlier, the job type groups that form during the automatic clustering process are determined only by the tasks performed, not by background variables such as AFSC or grade. In this instance, because of the large number of tasks performed by these three groups, and the effect of rounding the consequently small time spent percentages, Table 17 is not very useful for displaying similarities and differences between the job types. A clearer picture is revealed by examining Table 16 together with the %N column Table 17. These show that job type GRP275 does in fact have much in common with GRP464 and GRP385.

The Receiving GRP030 Subcluster consists almost entirely of 647X0 personnel employed on the three job types shown in Table 18. The Receiving Supervisors GRP317 have an average of 11 years experience in their DAFS and perform supervisory, as well as normal receiving, duties and tasks.

## VII. COMMENTS ON INVENTORY GRP053 SUBCLUSTER

This homogeneous subcluster consists only of inventory workers in two job type groups, Inventory Clerks GRP421 and Inventory Supervisors GRP1042. See Tables 21 through 23 for branch diagram, duty comparison and task comparison of this subcluster. Almost equal numbers of 645X0 and 647X0 airmen are employed as clerks, but the supervisors are predominantly 645X0. The supervisors do most of the tasks of the clerks, but average less time on each task.

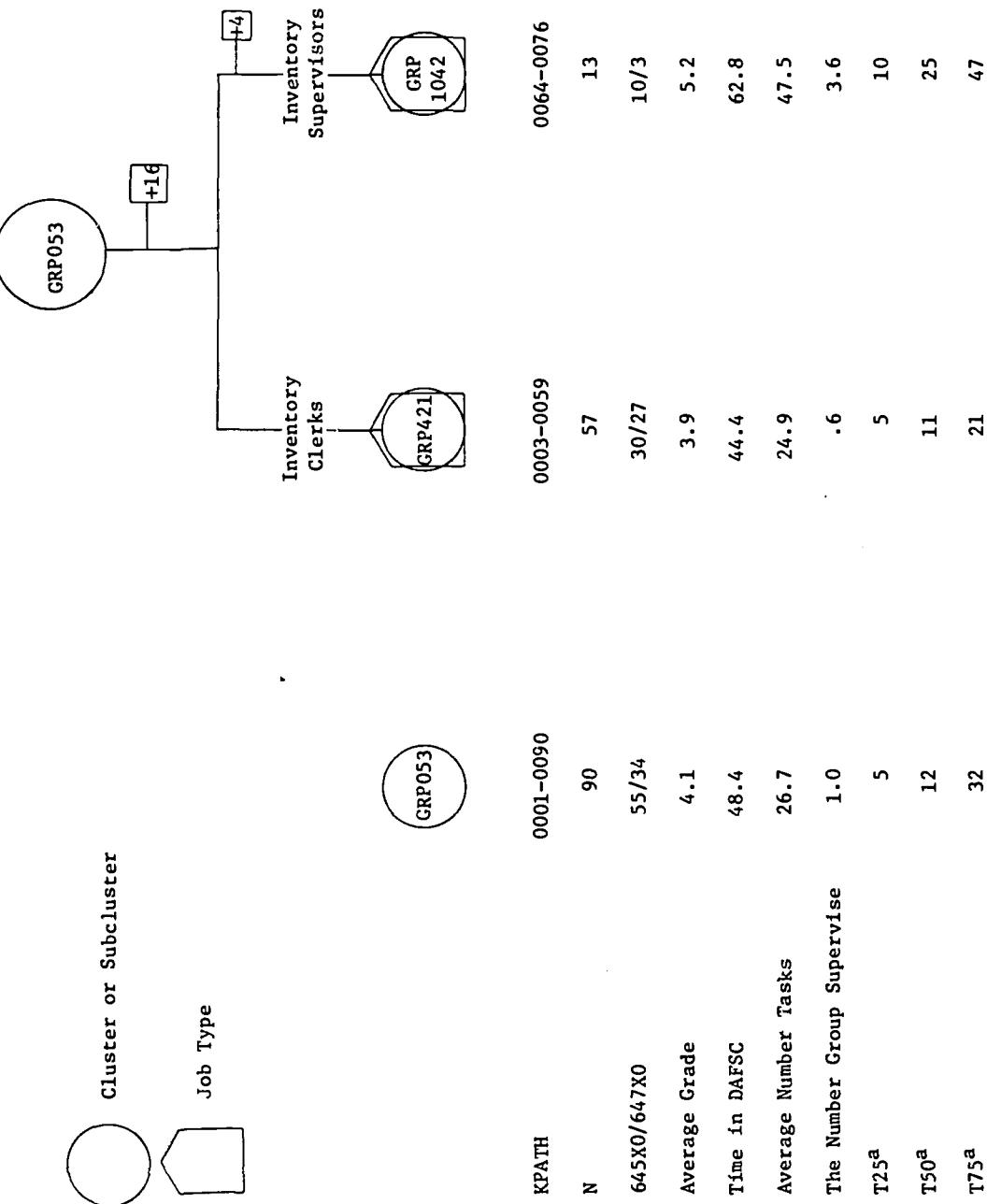
## VIII. COMMENTS ON SUPERVISORS AND SPECIALISTS GRP037 CLUSTERS

Tables 24 through 26 show the branch diagram, duty comparison and task comparison for the Supervisors and Specialists GRP037 cluster, while Tables 27 through 29, 30 through 32 and 33 through 35 show these diagrams and comparisons for the subclusters of GRP037, viz., GRP060, GRP070 and GRP062. GRP037, a large cluster of high-ranking NCOs formed at stage GRP037 of the automated clustering process was found, on analysis, to contain a high proportion of members whose main role was to supervise. These members performed essentially the same duties and tasks no matter what work area they actually supervised. Also in the cluster were a number of "specialist" job types, where the word "specialist" is used to connote "highly experienced men concentrating on a homogeneous group of difficult tasks" rather than in the usual Air Force sense of describing 5-skill level personnel.

The 17 job types identified fell into 3 rather heterogeneous subclusters. Most of the 20% of the 647X0 NCOs in the main cluster had jobs within the Senior Supervisors and Specialists GRP060 Subcluster, where they lost their AFSC identity to merge with 645X0 supervisors in groups such as Senior Supervisor Type 2 GRP337, Senior Supervisor Type 1 GRP260, and Bench Stock Supervisor GRP379. Those 647X0 NCOs in identifiable supervisory jobs; e.g., Delivery Supervisor GRP295, clustered with their workers in the Warehousing and Supply GRP019 reported earlier; whereas 645X0 supervisors in identifiable jobs tended to cluster with other supervisors in GRP037, rather than with their workers; e.g., PCAM/Document Supervisor GRP495, tended to cluster with other supervisors in GRP037 rather than with their workers in PCAM Operators GRP818 (Table 3). Most 645X0 supervisors could not be identified with their workers in the same way as the 647X0 supervisory group in each of the subclusters of the Warehousing and Supply GRP019 Cluster.

Inspection of the Branch Diagram and background information for the Supervisors and Specialists GRP037 Cluster (Table 24) shows that it contains a less experienced and lower grade Requisitioning GRP062 Subcluster, who have less of a supervisory role than Senior Supervisor and Specialists GRP060 and Inventory Management Supervisors and Clerks GRP070. While their work is not clearly related to that of the other two clusters, inspection of Tables 25 and 26 shows some small overlaps, the aggregate of which is sufficient to cause clustering.

TABLE 21. JOB TYPES IN GRP053 - INVENTORY SUBCLUSTER



<sup>a</sup>Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 22. DUTY COMPARISON OF GRP053 -- INVENTORY SUBCLUSTER

| DUTY                         | GROUP NO |   | 053<br>N<br>90 | 421<br>57 | 1042<br>13 | %N (%T) | %N (%T) | %N (%T) |
|------------------------------|----------|---|----------------|-----------|------------|---------|---------|---------|
|                              |          | N |                |           |            |         |         |         |
| A ORGANIZING AND PLANNING    |          |   |                | 55(7)     | -          | 100(12) |         |         |
| B DIRECTING AND IMPLEMENTING |          |   |                | -         | -          | 100(18) |         |         |
| C INSPECTING AND EVALUATING  |          |   |                |           | -          | 100(8)  |         |         |
| D TRAINING                   |          |   |                | -         | -          | 84(8)   |         |         |
| E INVENTORYING               |          |   | 100(72)        | 100(84)   | 100(47)    |         |         |         |

TABLE 23. TASK COMPARISON OF GRP053 -- INVENTORY SUBCLUSTER

| Line<br>No. | TASK<br>TITLE | GROUP NO                            |  | 053     | 421     | 1042    |
|-------------|---------------|-------------------------------------|--|---------|---------|---------|
|             |               | N                                   |  | 90      | 57      | 13      |
|             |               |                                     |  | %N (%T) | %N (%T) | %N (%T) |
| 1           | E28           | RESEARCH INVENTORY DISCREPANCIES    |  | 82(5)   | 96(6)   | 100(3)  |
| 2           | E9            | CORRECT INVENTORY DISCREPANCIES     |  | 81(5)   | 96(6)   | 100(3)  |
| 3           | aE10          | COUNT PROPERTY                      |  | 90(6)   | 95(5)   | -       |
| 4           | aF2           | COMPARE COUNTS WITH RECORDS         |  | 82(4)   | 95(5)   | 84(2)   |
| 5           | aE13          | FIND SOURCES OF DISCREPANCIES       |  | 77(4)   | 87(5)   | 100(3)  |
| 6           | aE29          | REVIEW ADJUSTMENT REGISTERS         |  | 64(3)   | 70(3)   | 100(3)  |
| 7           | E30           | SUPERVISE INVENTORIES               |  | 42(2)   | 36(2)   | 84(3)   |
| 8           | aB2           | COORDINATE WITH OTHER SECTIONS      |  | 42(1)   | -       | 100(2)  |
| 9           | aB32          | SUPERVISE SCHEDULED CYCLE INVENTORY |  | 32(1)   | -       | 77(2)   |

a Task Title Abbreviated.

TABLE 24. JOB TYPE SUBCLUSTERS IN GRP037 - SUPERVISORS AND SPECIALISTS CLUSTER

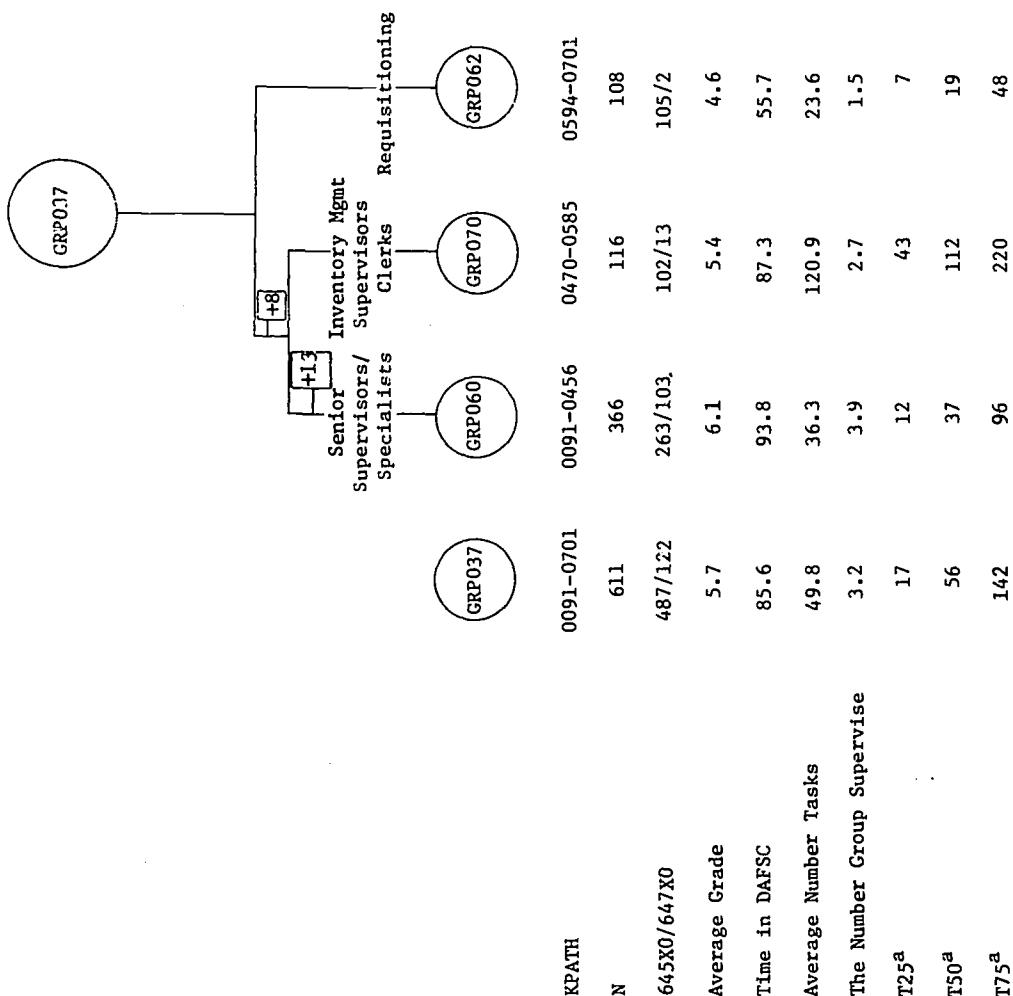


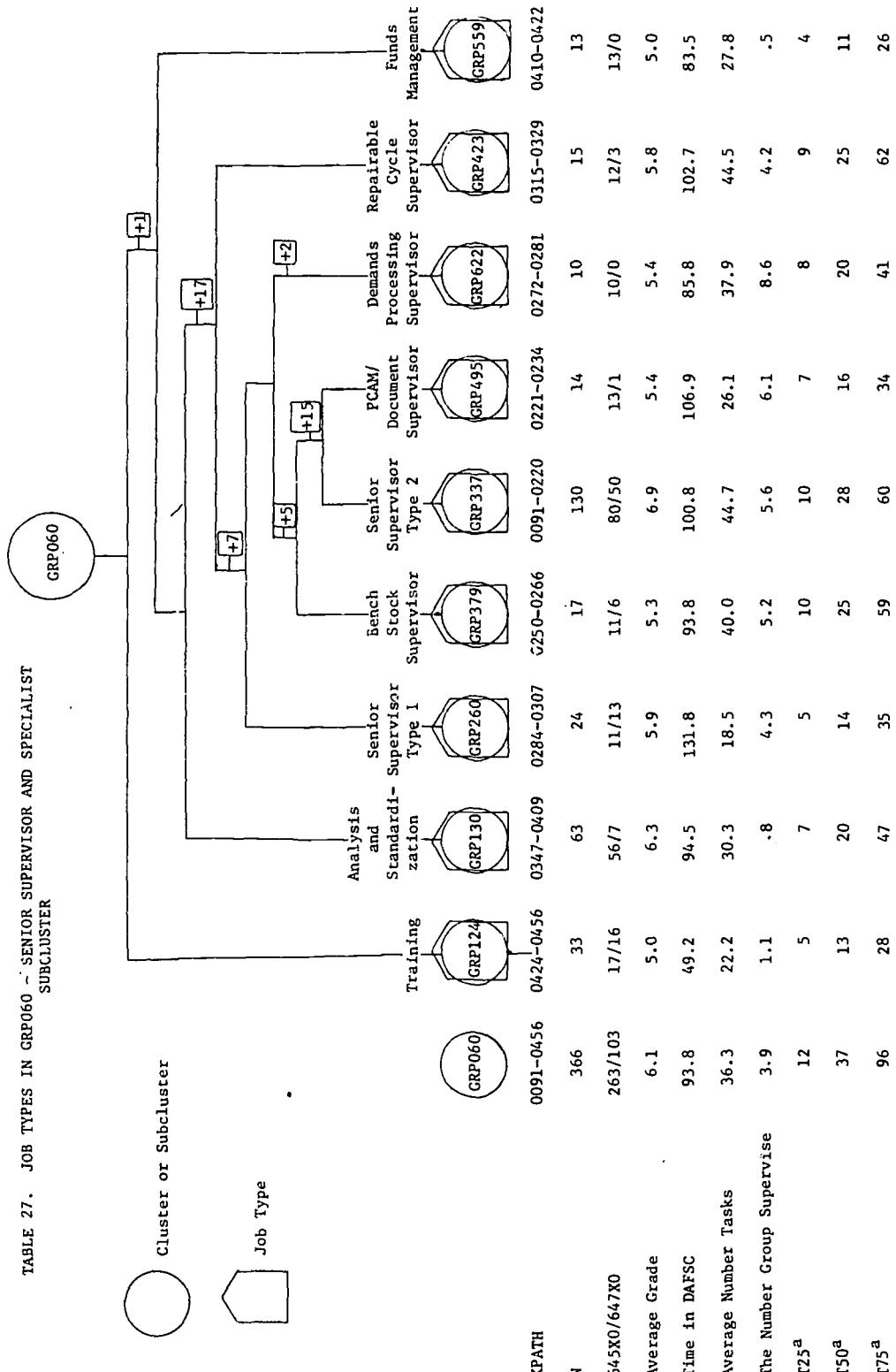
TABLE 25. DUTY COMPARISON OF GRP037 -- SUPERVISORS AND SPECIALISTS CLUSTER

| DUTY  | GROUP NO<br>N | 037<br>611 |         | 060<br>366 |          | 070<br>116 |         | 062<br>108 |         |
|---|---------------|------------|---------|------------|----------|------------|---------|------------|---------|
|   |               | %N (%T)    | %N (%T) | %N (%T)    | %N (%T)  | %N (%T)    | %N (%T) | %N (%T)    | %N (%T) |
| A ORGANIZING AND PLANNING   |               | 79 (11)    | 90 (15) | 80 (5)     | -        | -          | -       | -          | -       |
| B DIRECTING AND IMPLEMENTING  |               | 94 (24)    | 97 (30) | 96 (13)    | 80 (16)  | -          | -       | -          | -       |
| C INSPECTING AND EVALUATING   |               | 80 (11)    | 90 (14) | 82 (7)     | -        | -          | -       | -          | -       |
| D TRAINING  |               | 69 (9)     | 77 (13) | -          | -        | -          | -       | -          | -       |
| E INVENTORYING EQUIPMENT AND SUPPLIES                                 |               | -          | -       | 88 (7)     | -        | -          | -       | -          | -       |
| F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS               |               | 51 (5)     | 50 (7)  | -          | -        | -          | -       | -          | -       |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                |               | 47 (5)     | -       | 91 (7)     | -        | -          | -       | -          | -       |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                |               | 48 (12)    | -       | 91 (8)     | 100 (52) | -          | -       | -          | -       |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            |               | -          | -       | 85 (6)     | -        | -          | -       | -          | -       |
| J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS             |               | -          | -       | -          | -        | -          | -       | -          | -       |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              |               | -          | -       | -          | -        | -          | -       | -          | -       |
| L PERFORMING FUNDS MANAGEMENT FUNCTIONS                               |               | -          | -       | -          | -        | -          | -       | -          | -       |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                |               | -          | -       | -          | -        | -          | -       | -          | -       |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              |               | -          | -       | -          | -        | -          | -       | -          | -       |
| O PERFORMING MATERIEL CONTROL FUNCTIONS                               |               | -          | -       | -          | -        | -          | -       | -          | -       |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             |               | -          | -       | -          | -        | -          | -       | -          | -       |
| Q PREPARING MUNITIONS REPORTS AND DOCUMENTS                           |               | -          | -       | -          | -        | -          | -       | -          | -       |
| R PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES                  |               | -          | -       | -          | -        | -          | -       | -          | -       |
| S RECEIVING PROPERTY  |               | -          | -       | -          | -        | -          | -       | -          | -       |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   |               | -          | -       | -          | -        | -          | -       | -          | -       |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               |               | -          | -       | -          | -        | -          | -       | -          | -       |
| V RESEARCHING PUBLICATIONS AND FILES                                  |               | -          | -       | -          | -        | -          | -       | -          | -       |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT |               | -          | -       | -          | -        | -          | -       | -          | -       |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   |               | -          | -       | -          | -        | -          | -       | -          | -       |

TABLE 26. TASK COMPARISON OF GRP037 -- SUPERVISORS AND SPECIALISTS CLUSTER

| Line<br>No. | TASK TITLE  | GROUP NO<br>N | 037    |        | 060    |        | 070    |        | 062    |        |
|-------------|---|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |   |               | %N(%T) |
| 1           | B2 COORDINATE WITH OTHER SECTIONS OR AGENCIES                     |               | 83(3)  | 91(4)  | 85(1)  | 54(2)  |        |        |        |        |
| 2           | B3 COUNSEL SUBORDINATES   |               | 63(2)  | 75(2)  | 59(1)  | -      |        |        |        |        |
| 3           | B4 DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES                  |               | 66(2)  | 77(2)  | 73(1)  | 33(1)  |        |        |        |        |
| 4           | B20 INTERPRET POLICIES, DIRECTIVES OR PROCEDURES FOR SUBORDINATES |               | 59(2)  | 71(2)  | 59(1)  | -      |        |        |        |        |
| 5           | B22 PREPARE REQUISITIONS FOR SUPPLIES OR EQUIPMENT                |               | 39(1)  | -      | 72(1)  | 60(3)  |        |        |        |        |
| 6           | H15 PREPARE AND SUBMIT REQUISITIONS                               |               | 26(1)  | -      | 57(1)  | 79(6)  |        |        |        |        |
| 7           | H25 PROCESS OFF-LINE REQUISITIONS                                 |               | 19(1)  | -      | -      | -      |        |        |        |        |
|             |   |               |        |        |        |        |        |        |        | 70(4)  |

TABLE 27. JOB TYPES IN GRP060 - SENIOR SUPERVISOR AND SPECIALIST  
SUBCLUSTER



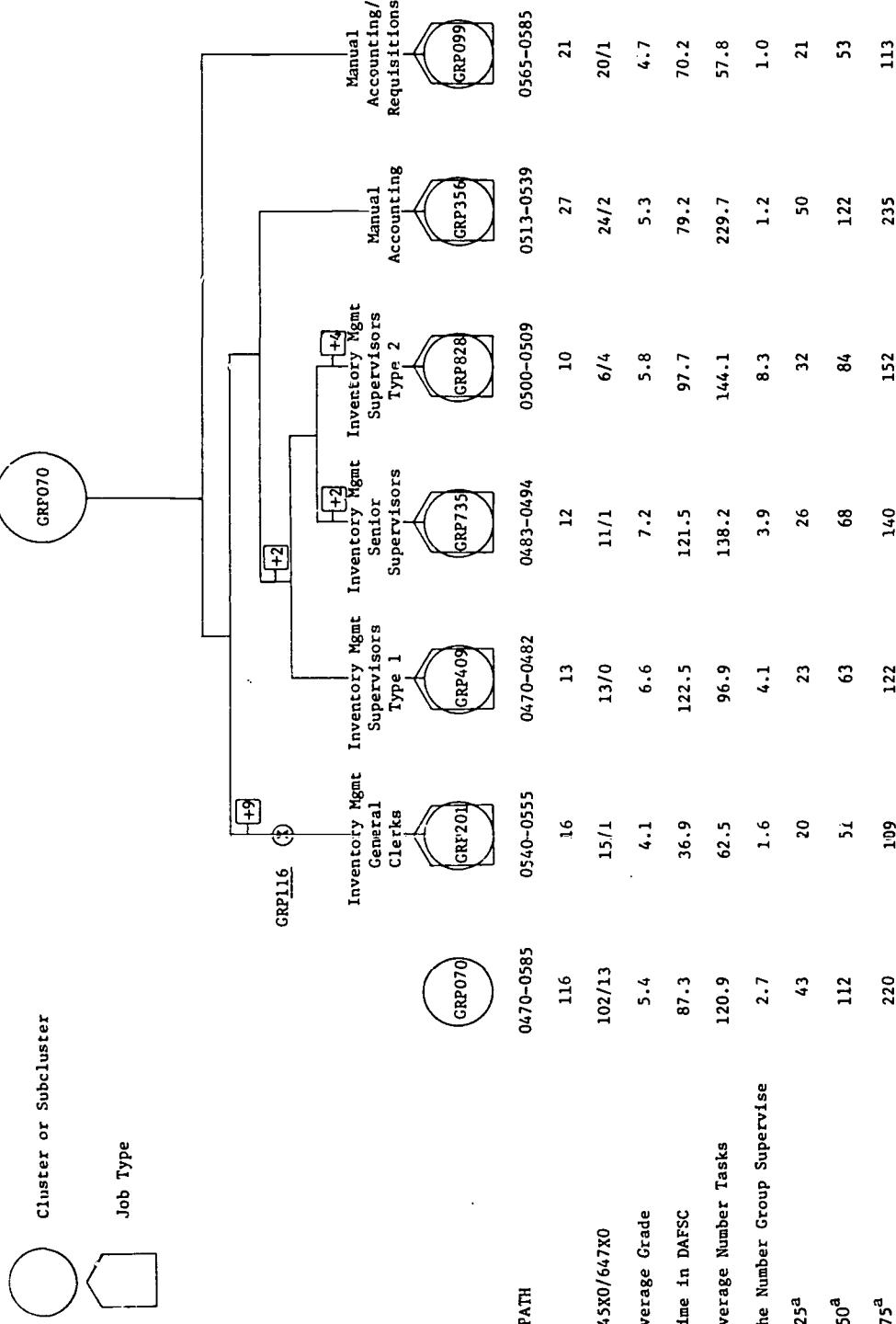
<sup>a</sup>Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 28. DUTY COMPARISON OF GRPO60 -- SENIOR SUPERVISOR AND SPECIALIST SUBCLUSTER

TABLE 29. TASK COMPARISON OF GRP060 -- SENIOR SUPERVISOR AND SPECIALIST SUBCLUSTER

| Line No. | Task Title  | Group No |        |        |        |        |        |        |        |        |        |        | Group No |        |        | Group No |        |       |
|----------|---|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|----------|--------|-------|
|          |   | 060      | 124    | 130    | 260    | 379    | 337    | 495    | 622    | 423    | 559    | 13     | 15       | 10     | 14     | 11       | 12     |       |
|          |   | ZN(ZT)   | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT) | ZN(ZT)   | ZN(ZT) | ZN(ZT) | ZN(ZT)   | ZN(ZT) |       |
| 1        | B2 COORDINATE WITH OTHER SECTIONS OR AGENCIES                           | 91(4)    | 55(3)  | 94(5)  | 92(7)  | 100(3) | 98(3)  | 93(6)  | 80(2)  | 87(2)  | 84(4)  | -      | -        | -      | -      | -        | -      | -     |
| 2        | D13 MAINTAIN TRAINING RECORDS, CHARTS OR GRAPHS                         | 40(1)    | 94(6)  | -      | -      | -      | -      | 57(3)  | 80(2)  | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 3        | D4 CONDUCT ON-THE-JOB TRAINING (OJT)                                    | 47(2)    | 79(5)  | -      | -      | 33(2)  | 65(2)  | 47(1)  | 93(4)  | 80(2)  | 60(2)  | -      | -        | -      | -      | -        | -      | -     |
| 4        | D19 SUPERVISE OUT   | 38(1)    | 76(5)  | -      | -      | 25(1)  | -      | -      | 79(3)  | 60(2)  | -      | -      | -        | -      | -      | -        | -      | -     |
| 5        | D17 RATE TRAINING PROGRESS OF INDIVIDUALS                               | 30(1)    | 73(5)  | -      | -      | -      | -      | -      | 50(2)  | 70(2)  | -      | -      | -        | -      | -      | -        | -      | -     |
| 6        | D15 PLAN OR SCHEDULE OUT  | 30(1)    | 73(5)  | -      | -      | -      | -      | -      | 71(3)  | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 7        | B11 DRAFT CORRESPONDENCE  | 70(3)    | 45(2)  | 89(6)  | -      | 59(2)  | 87(3)  | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | 70(3) |
| 8        | C1 ANALYSE IG REPORTS   | 44(1)    | -      | 84(3)  | -      | -      | 65(2)  | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 9        | A6 DETERMINE WORK PRIORITIES  | 64(2)    | -      | -      | 75(6)  | 70(2)  | 87(2)  | 57(2)  | 90(2)  | 60(2)  | 62(1)  | -      | -        | -      | -      | -        | -      | -     |
| 10       | B3 COUNSEL SUBORDINATES   | 75(2)    | 36(1)  | -      | 92(6)  | 94(2)  | 98(2)  | 100(5) | 90(3)  | 80(2)  | 53(2)  | -      | -        | -      | -      | -        | -      | -     |
| 11       | A13 PLAN OR SCHEDULE WORK ASSIGNMENTS                                   | 59(2)    | -      | -      | 75(5)  | 76(2)  | 84(2)  | 78(3)  | 90(2)  | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 12       | B4 DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES                        | 77(2)    | -      | -      | 79(5)  | 70(2)  | 95(3)  | 79(3)  | 90(3)  | 67(2)  | 69(2)  | -      | -        | -      | -      | -        | -      | -     |
| 13       | I3 ESTABLISH BENCH STOCKS IN COORDINATION WITH SUPPORTED ACTIVITIES     | -        | -      | -      | -      | -      | 94(3)  | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 14       | I8 INVENTORY OR REPLENISH BENCH STOCKS                                  | -        | -      | -      | -      | -      | 88(3)  | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 15       | B31 SUPERVISE REPAIR CYCLE OR BENCH STOCK ACTIVITIES                    | -        | -      | -      | -      | -      | 82(3)  | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 16       | R20 INTERPRET POLICIES, DIRECTIVES OR PROCEDURES FOR SUBORDINATES       | -        | -      | -      | 57(3)  | 25(1)  | 94(2)  | 93(3)  | 85(4)  | 90(3)  | 67(2)  | -      | -        | -      | -      | -        | -      | -     |
| 17       | B23 PROVIDE SUPERVISORY Indoctrination of Newly Assigned Personnel      | 63(2)    | -      | -      | 54(3)  | 71(2)  | 91(2)  | 93(4)  | 70(2)  | 73(1)  | 38(1)  | -      | -        | -      | -      | -        | -      | -     |
| 18       | C29 WRITE AIRMAN PERFORMANCE REPORTS                                    | 71(2)    | -      | -      | 66(4)  | 88(2)  | 90(2)  | 86(4)  | 90(3)  | 80(2)  | -      | -      | -        | -      | -      | -        | -      | -     |
| 19       | I15 OPERATE RADAR, PHONE, INTERCOM OR TELETYPE EQUIPMENT                | -        | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 20       | I19 PREPARE INPUTS FOR COMPUTER PROCESSING                              | -        | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 21       | I11 MAINTAIN SURVEILLANCE OF DIRM ITEMS                                 | -        | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 22       | I22 PREPARE TURN-IN DOCUMENTS FOR DIRM ITEMS                            | -        | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -        | -      | -      | 100(4)   | -      | -     |
| 23       | L5 MONITOR GENERAL SUPPORT OR SYSTEM SUPPORT DIVISIONS OF AF STOCK FUND | -        | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -        | -      | -      | 100(3)   | -      | -     |
| 24       | L2 DEVELOP STOCK FUND OPERATIONS PROGRAMS                               | -        | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -        | -      | -      | -        | -      | -     |
| 25       | L7 PREPARE AND MANAGE OPERATING BUDGETS                                 | -        | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -        | -      | -      | -        | 92(6)  | -     |

TABLE 30. JOB TYPES IN GRP070 - INVENTORY MANAGEMENT SUPERVISORS AND CLERKS SUBCLUSTER



Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time

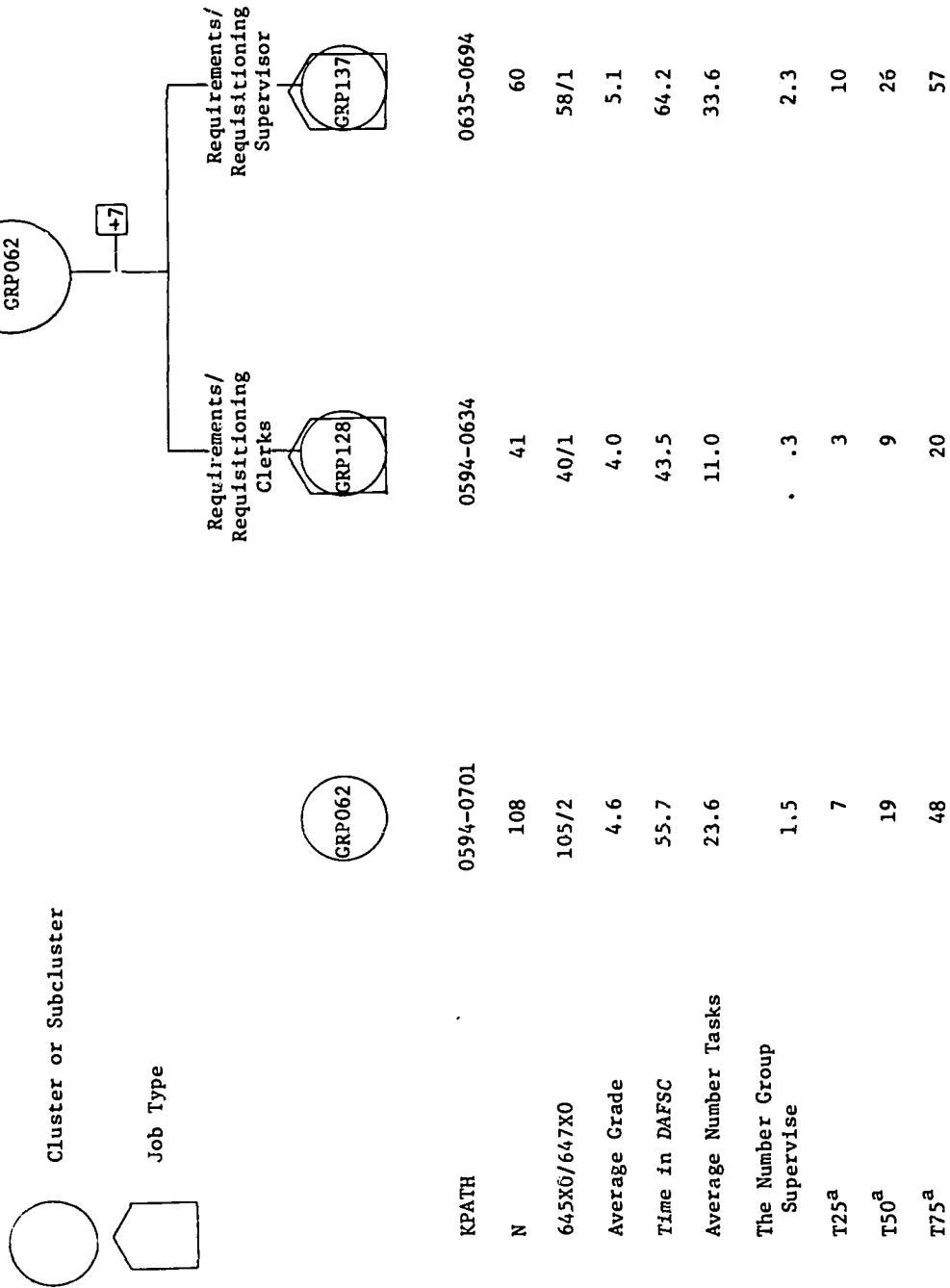
TABLE 31. DUTY COMPARISON OF GRP070 -- INVENTORY MANAGEMENT SUPERVISORS AND CLERKS SUBCLUSTER

| DUTY  | GROUP NO<br>N | 070     | 201     | 409     | 735     | 828     | 356     | 099    |
|---|---------------|---------|---------|---------|---------|---------|---------|--------|
|   |               | 116     | 16      | 13      | 12      | 10      | 27      | 21     |
|   | ZN(ZT)        | ZN(XT)  | ZN(ZT)  | ZN(ZT)  | ZN(ZT)  | ZN(ZT)  | ZN(ZT)  | ZN(ZT) |
| A ORGANIZING AND PLANNING   | 80(5)         | -       | 100(8)  | 100(11) | 100(11) | 100(8)  | -       | -      |
| B DIRECTING AND IMPLEMENTING  | 96(13)        | 93(11)  | 100(21) | 100(22) | 100(15) | 100(9)  | 85(7)   | -      |
| C INSPECTING AND EVALUATING   | 82(7)         | -       | 100(12) | 100(17) | 100(11) | 100(11) | 88(5)   | -      |
| D TRAINING  | -             | -       | 100(6)  | 100(7)  | 100(7)  | 100(7)  | -       | -      |
| E INVENTORYING EQUIPMENT AND SUPPLIES                                 | 88(7)         | -       | -       | 100(7)  | 100(6)  | 96(8)   | 95(16)  | -      |
| F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS               | -             | -       | 100(7)  | 100(6)  | -       | -       | -       | -      |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                | 91(7)         | 100(12) | 100(6)  | -       | -       | -       | 100(8)  | 95(13) |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                | 91(8)         | 100(14) | 92(13)  | -       | -       | -       | 100(7)  | 95(11) |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            | 85(6)         | 100(11) | -       | 91(5)   | -       | 92(5)   | 80(6)   | -      |
| J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS             | -             | -       | -       | -       | 70(5)   | -       | -       | -      |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              | -             | -       | -       | -       | -       | -       | -       | -      |
| L PERFORMING FUNDS MANAGEMENT FUNCTIONS                               | -             | -       | -       | -       | -       | -       | 80(9)   | -      |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                | -             | -       | -       | -       | -       | -       | -       | -      |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              | -             | -       | -       | -       | -       | -       | -       | -      |
| O PERFORMING MATERIEL CONTROL FUNCTIONS                               | -             | -       | -       | -       | -       | -       | -       | -      |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             | -             | -       | -       | -       | -       | -       | 100(7)  | 100(7) |
| Q PREPARING MUNITIONS REPORTS AND DOCUMENTS                           | -             | -       | -       | -       | -       | -       | 100(5)  | 96(7)  |
| R PERFORMING REISTRIBUTION AND MARKETING ACTIVITIES                   | -             | -       | -       | -       | -       | -       | -       | 52(5)  |
| S RECEIVING PROPERTY  | 77(5)         | -       | -       | -       | -       | -       | -       | -      |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   | 80(5)         | 100(6)  | -       | -       | -       | -       | 96(7)   | -      |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               | -             | 93(5)   | -       | -       | -       | -       | -       | -      |
| V RESEARCHING PUBLICATIONS AND FILES                                  | -             | -       | -       | -       | -       | -       | -       | -      |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT | 72(6)         | -       | -       | -       | -       | -       | 100(13) | 100(9) |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   | -             | -       | -       | -       | -       | -       | -       | -      |

TABLE 32. TASK COMPARISON OF CPG070 -- INVENTORY MANAGEMENT SUPERVISORS AND CLERKS SUBCLUSTER

| Line<br>No. | TASK TITLE   | Z(N)(%)       |            |           |           |           |           | Z(N)(%)   |           |  | Z(N)(%) |  |  |
|-------------|--|---------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|--|---------|--|--|
|             |  | GROUP NO<br>N | 070<br>116 | 201<br>16 | 409<br>13 | 735<br>12 | 828<br>10 | 356<br>27 | 099<br>21 |  |         |  |  |
| 1           | B2 COORDINATE WITH OTHER SECTIONS OR AGENCIES          | 85(1)         | 85(2)      | 100(2)    | 100(1)    | 100(1)    | 100(1)    | 96(1)     | 48(1)     |  |         |  |  |
| 2           | B5 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS OR CHARTS | -             | 69(2)      | 92(1)     | -         | -         | -         | -         | -         |  |         |  |  |
| 3           | C13 MAINTAIN DOCUMENT AND SUPPORT FILES                | 47(1)         | 75(1)      | -         | 92(1)     | 90(1)     | 90(1)     | -         | 33(1)     |  |         |  |  |
| 4           | B1 CONDUCT OR PARTICIPATE IN STAFF MEETINGS            | -             | -          | 92(1)     | 100(1)    | 100(1)    | 100(1)    | -         | -         |  |         |  |  |
| 5           | B3 COUNSEL SUBORDINATES                                | -             | -          | 75(1)     | 91(1)     | 100(1)    | 100(1)    | -         | -         |  |         |  |  |
| 6           | B4 DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES       | 73(1)         | 75(1)      | -         | 100(2)    | 100(1)    | 100(1)    | -         | -         |  |         |  |  |
| 7           | B11 DRAFT CORRESPONDENCE                               | 70(1)         | -          | 62(1)     | 62(1)     | 61(1)     | -         | 90(1)     | 89(1)     |  |         |  |  |
| 8           | H15 PREPARE AND SUBMIT REQUISITIONS                    | 57(1)         | 51(1)      | -         | -         | -         | -         | 85(1)     | 76(2)     |  |         |  |  |
| 9           | P8 PREPARE REQUESTS FOR ISSUE AND TURN-IN              | -             | -          | -         | -         | -         | -         | 93(1)     | 71(2)     |  |         |  |  |
| 10          | P4 MANUALLY PREPARE SHIPMENT OR REQUISITION DOCUMENTS  | -             | -          | -         | -         | -         | -         | 88(1)     | 62(1)     |  |         |  |  |
| 11          | C29 WRITE AIRMEN PERFORMANCE REPORTS                   | 63(1)         | -          | 100(1)    | -         | 100(1)    | -         | 100(1)    | -         |  |         |  |  |

TABLE 33. JOB TYPES IN GRP062 - REQUISITIONING SUBCLUSTER



<sup>a</sup>Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 34. DUTY COMPARISON OF GRP062 -- REQUISITIONING SUBCLUSTER

| DUTY                                | GROUP NO<br>N | 062     | 128     | 137     |
|-------------------------------------|---------------|---------|---------|---------|
|                                     |               | 108     | 41      | 60      |
|                                     |               | %N (%T) | %N (%T) | %N (%T) |
| A ORGANIZING AND PLANNING           | -             | -       | 68(6)   |         |
| B DIRECTING AND IMPLEMENTING        | 80(16)        | 46(7)   | 100(21) |         |
| C INSPECTING AND EVALUATING         | -             | -       | 80(6)   |         |
| D TRAINING                          | -             | -       | 55(6)   |         |
| G PERFORMING ITEM ACCOUNTING        | -             | -       | 50(5)   |         |
| H PERFORMING REQUIREMENTS FUNCTIONS | 100(52)       | 100(79) | 100(36) |         |

<sup>a</sup>Duty Title Abbreviated.

TABLE 35. TASK COMPARISON OF GRP062 -- REQUISITIONING SUBCLUSTER

| Line<br>No.                            | TASK TITLE | GROUP NO | %N (%T) |       |       | %N (%T) |
|--|------------|----------|---------|-------|-------|---------|
|  |            |          | N       | 062   | 108   |         |
| <b>PREPARE AND SUBMIT REQUISITIONS</b> |            |          |         |       |       |         |
| 1                                      | H15        |          |         | 79(6) | 75(8) | 78(3)   |
| 2                                      | aH6        |          |         | 67(5) | 71(8) | 70(2)   |
| 3                                      | aH7        |          |         | 57(4) | 63(8) | 60(2)   |
| 4                                      | H25        |          |         | 70(4) | 65(6) | 78(3)   |
| 5                                      | aB22       |          |         | 60(3) | 19(2) | 85(4)   |
| 6                                      | aH21       |          |         | 49(3) | 51(5) | 53(2)   |
| 7                                      | aH3        |          |         | 32(2) | 34(4) | -       |
| 8                                      | B2         |          |         | 54(2) | 14(1) | 83(3)   |
| 9                                      | aB5        |          |         | 39(2) | -     | 58(2)   |

<sup>a</sup>Task Title abbreviated.

Table 27 for the Senior Supervisor and Specialist GRP060 Subcluster shows that it contains six supervisor job types clustered in the center, with three specialist job types, Training GRP124, Analysis and Standardization GRP130, Funds Management GRP559, clustered around the fringe. Two supervisor job types Senior Supervisor Type 1 GRP260 and Senior Supervisor Type 2 GRP337 could not be associated with particular work areas and have been called simply Senior Supervisors. Inspection of the tabulated background, duty, and task variables discloses the similarities which caused clustering, also the differences causing recognition as separate job types.

Inventory Management Supervisors and Clerks GRP070 Subcluster (Table 30) also has at its center, three supervisory job types, and a fringe of three specialist jobs. While this appears very similar to GRP060, the background information and Duty Comparison table for GRP037 (Tables 24 and 25) show there are pronounced differences in the average number of tasks performed, and in the duties performed, by GRP070 and GRP060. The large number of tasks performed by GRP070 reduces the usefulness of the time spent on tasks (%T) figure in Table 32 in discriminating between job types; however, the combined information provided by the branch diagram, background variables, and duty and task comparison tables shows clearly the main points of similarity and difference in the six job types.

As stated earlier, there is not a great deal of similarity between the final Requisitioning GRP062 Subcluster (Table 33) and the other two subclusters (GRP060 and GRP070) of cluster GRP037. GRP062 consists almost entirely of 645X0 personnel of considerably lower grade and experience than the other two subclusters. Members work almost exclusively on requisitioning tasks, and the subcluster contains both workers and supervisors. It is possible that this subcluster should be a separate entity in the same way as the Equipment and Authorization Monitors GRP021 Subcluster in Table 3.

#### **IX. COMMENTS ON ALLOWANCE AND AUTHORIZATION GRP021 SUBCLUSTER**

The final job type subcluster identified in the original sample consisted of 73 airmen from the 645X0 career ladder who performed one of three jobs associated with allowance and authorization of equipment, hence the name. Tables 36 through 38 show the branch diagram, duty comparison and task comparison for this cluster. Differences

between Allowance and Authorization GRP021 and other job type clusters identified in the total sample are displayed in the Branch Diagram and Duty and Task Comparison Tables GRP001 (Tables 3 through 5).

Table 36 shows that the subcluster consists of three nonsupervisory job types. Performance of Duty J "Performing Equipment Review and Authorization Functions," is the key to cluster membership, but each of the three job type groups, Inventory Management/Allowance Authorization GRP078, Allowance Authorization Monitors GRP189, and Allowance Authorization Clerks GRP284, perform a rather different subset of tasks from this duty. GRP189 and GRP284 are highly specialized, performing relatively few tasks, while GRP078 performs a larger number that includes most of the tasks of the other two groups, but spends a smaller proportion of its time on each.

#### **X. COMMENTS ON JOB TYPE GROUPS SUPPLY INSPECTORS GRP031 AND PCAM OPERATORS GRP818**

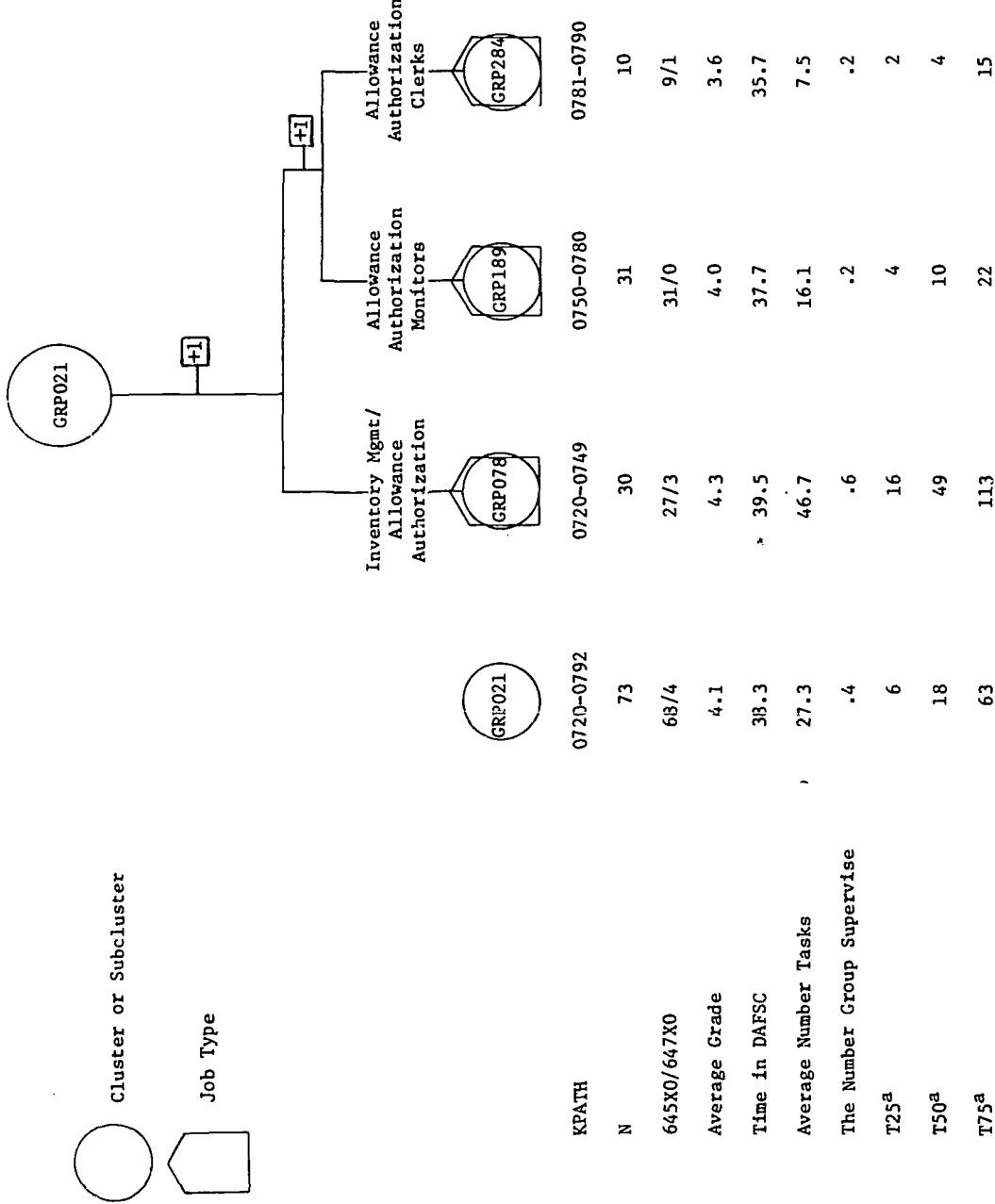
The branch diagram for the total sample GRP001 (Table 3) contained two unique job type groups, Supply Inspectors GRP031 and PCAM Operators GRP818. While general comments on GRP001 occur earlier in this report, a few specific comments on these two job types are pertinent.

GRP031 consists entirely of 647X0 airmen who spend most of their time on tasks either from, or in association with, Duty T "Inspecting Identifying and Classifying Property." They have, on the average, one subordinate and thus spend little time on personnel tasks. GRP818 consists of 10 airmen who all concentrate almost exclusively on the same three tasks (M1, M2, M3) from Duty M "Operating Computer Support Equipment." This was the most homogeneous group identified in the analysis. Background and job characteristics of these two groups are revealed by inspection of the GRP001 tabulations (Tables 3 through 5).

#### **XI. SIMILARITY OF JOB TYPES IDENTIFIED IN THE TWO DIFFERENT SAMPLES**

The analyst for the first sample reported identifying 20 job type clusters and 9 unclustered job types, a total of 29 reportable groups. Table 2 shows a copy of the GRP001 Branch Diagram from Report AFPT 90-64X-069. The unclustered job types are at the lower level in the diagram, with the clusters at the upper level. Reports on 10 of the 29 groups are included in the text of the

TABLE 36. JOB TYPES IN GRP021 - ALLOWANCE AND AUTHORIZATION SUBCLUSTER



<sup>a</sup>Number of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

TABLE 37. DUTY COMPARISON OF GRP021 -- ALLOWANCE AND AUTHORIZATION SUBCLUSTER

| DUTY  | GROUP NO<br>N | 021<br>73 |        | 078<br>30 |        | 189<br>31 |        | 284<br>10 |        |
|---|---------------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
|   |               | %N(%T)    | %N(%T) | %N(%T)    | %N(%T) | %N(%T)    | %N(%T) | %N(%T)    | %N(%T) |
| A ORGANIZING AND PLANNING   |               |           |        |           |        |           |        |           |        |
| B DIRECTING AND IMPLEMENTING  |               |           |        |           |        |           |        |           |        |
| C INSPECTING AND EVALUATING   |               |           |        |           |        |           |        |           |        |
| D TRAINING  |               |           |        |           |        |           |        |           |        |
| E INVENTORYING EQUIPMENT AND SUPPLIES                                 |               |           |        |           |        |           |        |           |        |
| F PERFORMING STANDARDIZATION AND SURVEILLANCE FUNCTIONS               |               |           |        |           |        |           |        |           |        |
| G PERFORMING ITEM ACCOUNTING FUNCTIONS                                |               |           |        |           |        |           |        |           |        |
| H PERFORMING REQUIREMENTS AND REQUISITIONING FUNCTIONS                |               |           |        |           |        |           |        |           |        |
| I PERFORMING MAINTENANCE SUPPORT FUNCTIONS                            |               |           |        |           |        |           |        |           |        |
| J PERFORMING EQUIPMENT REVIEW AND AUTHORIZATION FUNCTIONS             |               |           |        |           |        |           |        |           |        |
| K PERFORMING ENGINE MANAGEMENT FUNCTIONS                              |               |           |        |           |        |           |        |           |        |
| L PERFORMING FUNDS MANAGEMENT FUNCTIONS                               |               |           |        |           |        |           |        |           |        |
| M OPERATING COMPUTER SUPPORT EQUIPMENT                                |               |           |        |           |        |           |        |           |        |
| N ACCOUNTING FOR INDIVIDUAL AND ORGANIZATIONAL EQUIPMENT              |               |           |        |           |        |           |        |           |        |
| O PERFORMING MATERIEL CONTROL FUNCTIONS                               |               |           |        |           |        |           |        |           |        |
| P PERFORMING MANUAL ACCOUNTING PROCEDURES                             |               |           |        |           |        |           |        |           |        |
| Q PREPARING MUNITIONS REPORTS AND DOCUMENTS                           |               |           |        |           |        |           |        |           |        |
| R PERFORMING REDISTRIBUTION AND MARKETING ACTIVITIES                  |               |           |        |           |        |           |        |           |        |
| S RECEIVING PROPERTY  |               |           |        |           |        |           |        |           |        |
| T INSPECTING, IDENTIFYING, AND CLASSIFYING PROPERTY                   |               |           |        |           |        |           |        |           |        |
| U MAINTAINING RECORDS, FILES, PUBLICATIONS, AND REPORTS               |               |           |        |           |        |           |        |           |        |
| V RESEARCHING PUBLICATIONS AND FILES                                  |               |           |        |           |        |           |        |           |        |
| W ISSUING, SHIPPING, STORING, AND TRANSFERRING SUPPLIES AND EQUIPMENT |               |           |        |           |        |           |        |           |        |
| X DELIVERING SUPPLIES AND EQUIPMENT                                   |               |           |        |           |        |           |        |           |        |

TABLE 38. TASK COMPARISON OF GRP021 -- ALLOWANCE AND AUTHORIZATION SUBCLUSTER

| Line<br>No. | TASK TITLE | GROUP NO<br>N   | 021                     | 078                            | 189                     | 284                 | %N(%T) | %N(%T) | %N(%T) |
|-------------|------------|---|-------------------------|--------------------------------|-------------------------|---------------------|--------|--------|--------|
|             |            |   | 73                      | 30                             | 31                      | 10                  |        |        |        |
| 1           | J9         | Maintain suspense file of AF forms 601A and 601B                            | 66(5)<br><u>77(5)</u>   | 70(2)<br><u>83(2)</u>          | 55(4)<br>77(6)          | 100(20)<br>70(11)   |        |        |        |
| 2           | J1         | Complete custodian request receipts af form 601B                            |                         |                                |                         |                     |        |        |        |
| 3           | J5         | Maintain completed files of approved and disapproved AF forms 601A and 601B | 66(4)                   | 73(2)                          | 48(3)                   | 100(15)             |        |        |        |
| 4           | J27        | Screen, update and file custodian authorization custody receipt listings    | 55(4)<br>64(4)          | 56(2)<br>62(2)                 | 61(5)<br>83(7)          | 20(3)<br>20(3)      |        |        |        |
| 5           | J19        | Research allowance documents to determine equipment allowances              |                         |                                |                         |                     |        |        |        |
| 6           | J14        | Prepare inputs to load, change or delete eaid in use detail records         | 53(3)<br>44(2)<br>44(2) | 43(1)<br>82(2)<br><u>77(2)</u> | 86(4)<br>16(1)<br>19(1) | -<br>20(3)<br>30(2) |        |        |        |
| 7           | B22        | Prepare requisitions for supplies or equipment                              |                         |                                |                         |                     |        |        |        |
| 8           | B2         | Coordinate with other sections or agencies                                  |                         |                                |                         |                     |        |        |        |

TABLE 39. SIMILARITY OF JOB TYPES

| FIRST ANALYSIS            |                             |                           | SECOND ANALYSIS             |                    |  |
|---------------------------|-----------------------------|---------------------------|-----------------------------|--------------------|--|
| Reported Job Type/Cluster |                             | Reported Job Type/Cluster | Unreported Job Type/Cluster |                    | Relation to Groups Reported in Second Sample |
| GRP                       | Title                       | N.                        | GRP                         | Title              | N.   |
| 031 <sup>a</sup>          | Bench Stock Support         | 43                        | 104                         | Bench Stock        | 26   |
| 430                       | Pickup and Delivery         | 121                       |                             |                    | 656 = 770 + 747                              |
| 061                       | Materiel Control Type 1     | 20                        | 060                         | Senior Supervisors | 125  |
| 076 <sup>a</sup>          | Supervision                 | 354                       | 086                         |                    | 086 = 153 + 11 isolates                      |
| 354                       | Training                    | 42                        | 124                         | Training           | 21   |
| 1047                      | Engine Management           | 5                         | 33                          |                    |  |
| 1354                      | Funds Management            | 7                         | 488                         |                    |  |
| 055a                      | Requisitioning              | 98                        | 13                          |                    | No group reported - too small                |
| 261                       | Supply Inspection           | 47                        | 108                         |                    |  |
| 207                       | Materiel Control Type 2     | 25                        | 031                         | Supply Inspectors  | 7  |
| 398                       | Munitions Supply            | 31                        | 53                          |                    |  |
| 570                       | TCTO Monitors               | 31                        | 116                         |                    |  |
| 300a                      | Warehousing                 | 6                         | 25                          |                    |  |
| 415                       | Tool Issue                  | 91                        | 27                          |                    |  |
| 765                       | Receiving Incheckers        | 20                        | 197                         |                    |  |
| 742                       | Repairable Processing       | 146                       | 110                         |                    |  |
| 149 <sup>a</sup>          | Repairable Processing       | 11                        | 31                          |                    |  |
| 593                       | Storage and Issue Locators  | 5                         | -----                       |                    |  |
| 110a                      | Storage and Issue Locators  | 172                       | -----                       |                    |  |
| 110a                      | Receiving                   | 8                         | 239                         |                    | No group reported - too small                |
| 600                       | Reject Monitors             | 179                       | 168                         |                    | 239 = 434 + 439 + 8 isolates                 |
| 048 <sup>a</sup>          | Individual Equipment        | 7                         | 121                         |                    | No group reported - too small                |
| 390 <sup>a</sup>          | Inventory                   | 48                        | 181                         |                    | 121 = 321 + 317 + 13 isolates                |
| 722                       | Repair Cycle Support        | 60                        | 596                         |                    | 596 = 147 less 11 members                    |
| 131                       | Demand Processing           | 421                       | 51                          |                    | 067 = 146 + 308 + 9 isolates                 |
| 066 <sup>a</sup>          | Allowance and Authorization | 8                         | 57                          |                    |  |
| 236                       | File Maintenance            | 30                        | -----                       |                    |  |
| 250                       | Research                    | 81                        | -----                       |                    |  |
| 054                       | Document Control            | 22                        | Equipment Authorization     | 73                 |  |
| 577                       | PCAM                        | 219                       | Equipment Monitors          |                    |  |
|                           |                             | 32                        | SNUD/Catalog Research       | 13                 |  |
|                           |                             | 14                        | Document Control            | 36                 |  |
|                           |                             | 818                       | PCAM Operators              | 10                 |  |
|                           |                             |                           | 144                         | 29                 | 144 = 808 + 13 isolates                      |

<sup>a</sup>Detailed report of job-type group in Report AFPT90-64X-069.

TABLE 40. COMPARISON OF BACKGROUND VARIABLES FOR JOB TYPE PAIRS

| GROUP                    | ARPa | BRPb |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| No. in GRP               | .031 | .104 | .048 | .067 | .055 | .062 | .066 | .021 | .076 | .060 | .110 | .321 | .149 | .239 | .300 | .197 | .390 | .421 |
| 645X0/647X0              | 43   | 26   | 48   | 51   | 98   | 108  | 81   | 73   | 354  | 366  | 179  | 137  | 172  | 168  | 91   | 110  | 60   | 57   |
| Av. Grade                | 4.0  | 3.9  | 3.8  | 3.9  | 4.5  | 4.6  | 4.2  | 4.1  | 6.2  | 6.1  | 3.8  | 3.5  | 3.4  | 3.5  | 4.5  | 4.9  | 4.4  | 3.9  |
| Total Months<br>in DAFSC | 58   | 49   | 37   | 36   | 56   | 56   | 57   | 38   | 92   | 94   | 41   | 31   | 31   | 34   | 52   | 76   | 56   | 44   |
| Av. No.<br>Tasks         | 14   | 12   | 25   | 41   | 25   | 24   | 22   | 27   | 50   | 36   | 28   | 23   | 20   | 22   | 56   | 69   | 24   | 25   |
| Av. No.<br>Supervised    | 1.5  | 1.5  | .4   | .9   | 1.4  | 1.5  | 1.0  | .4   | 4.4  | 3.9  | 2.0  | .7   | .7   | .5   | 2.2  | 3.0  | .9   | .5   |
| T25c                     | 2    | 2    | 6    | 7    | 6    | 7    | 5    | 6    | 14   | 12   | 5    | 5    | 5    | 5    | 15   | 21   | 5    | .6   |
| T50c                     | 8    | 7    | 20   | ?    | 17   | 14   | 13   | 18   | 44   | 37   | 12   | 11   | 12   | 13   | 42   | 50   | 11   | 10   |
| T75c                     | 25   | 19   | 56   | 7    | 46   | 48   | 41   | 63   | 114  | 96   | 28   | 20   | 27   | 30   | 90   | 104  | 23   | 20   |
| 53                       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 10   | 9    |

<sup>a</sup>ARP = GRP from First Analysis.<sup>b</sup>BRP = GRP from Second Analysis.

cNumber of Tasks Accounting for 25%, 50%, and 75% of Group's Work Time.

dJob Type Reported by Both Analysts.

TABLE 41. STABILITY OF JOB TYPE GROUP SIZE

| GRP               | FIRST SAMPLE |     | SECOND SAMPLE |     | $\chi^2$ |
|-------------------|--------------|-----|---------------|-----|----------|
|                   | N            | GRP | N             | GRP |          |
| 031 <sup>a</sup>  | 43           | 104 | 26            |     | 3.71     |
| 430               | 121          | 656 | 125           |     | 0.03     |
| 061               | 20           | 086 | 21            |     | 0.00     |
| 076 <sup>a</sup>  | 354          | 060 | 366           |     | 0.16     |
| 354 <sup>a</sup>  | 42           | 124 | 33            |     | 0.85     |
| 1047              | 5            | 488 | 7             |     | 0.08     |
| 1354 <sup>a</sup> | 7            | 559 | 13            |     | 1.25     |
| 055 <sup>a</sup>  | 98           | 062 | 108           |     | 0.39     |
| 261 <sup>a</sup>  | 47           | 031 | 53            |     | 0.25     |
| 207               | 25           | 116 | 25            |     | 0.00     |
| 398 <sup>a</sup>  | 31           | 356 | 27            |     | 0.15     |
| 300 <sup>a</sup>  | 91           | 197 | 110           |     | 1.61     |
| 415 <sup>a</sup>  | 20           | 146 | 31            |     | 1.96     |
| 149               | 172          | 239 | 168           |     | 0.02     |
| 110               | 179          | 121 | 181           |     | 0.00     |
| 600               | 7            | 596 | 10            |     | 0.23     |
| 048               | 48           | 067 | 51            |     | 0.04     |
| 390 <sup>a</sup>  | 60           | 421 | 57            |     | 0.03     |
| 066 <sup>a</sup>  | 81           | 021 | 73            |     | 0.31     |
| 236               | 22           | 219 | 13            |     | 1.82     |
| 250               | 20           | 144 | 29            |     | 1.30     |
| 054 <sup>a</sup>  | 32           | 036 | 36            |     | 0.13     |
| 577 <sup>a</sup>  | 14           | 818 | 10            |     | 0.37     |

<sup>a</sup>Job type group reported by both analysts.

report. For all 29 groups, the complete job description (all duties and all tasks) was available in the computer printout, but background Variables Summaries (VARSUMS) were available only on the 10 groups written up. KPATH printouts of all the background variables for all cases in the first sample were also available.

To gauge the similarity of the job types reported in the two analyses, each of the 29 groups reported on the first occasion was compared initially with the 54 reported job types in the second analysis; then, if no obvious similarity was found, the next step was to compare it with each of the many other groups examined during the second analysis but not selected as a reportable job type (unreported group). If this search did not locate a similar group, the third step was to examine the KPATH listing of background variables such as Present Job and Work Area Presently Assigned for the first group and then scan the KPATH of these variables for the second sample to locate a similar group. These searches resulted in at least one tentatively similar group being located for 28 of the 29 job types reported in the first sample.

Each of these tentatively similar job type groups was then compared by an automated job type selection program which reports any significant difference in an input pair of job types in terms of such variables as the percent time spent on tasks and duties, the percent of members performing the various tasks, and the average number of tasks performed by each. In all, this program gives six measures of similarity for each pair of job types input. The program indicated that six of the input pairs were significantly different. Further effort at locating matching job types for these six groups proved unsuccessful.

Table 39 tabulates the 29 job types from the first analysis together with their matched job type, if any, from either the reported job type or unreported groups from the second analysis. It also shows the relationship between the un-

reported groups in the second analysis and groups which were reported; e.g., GRP656, an unreported group almost identical with the first analyst's Pickup and Delivery GRP430, is simply the combination of Driver/Receiver GRP770 and Pickup and Delivery Driver GRP747, both of which were reported in the second analysis. A comparison of background variables for each of the 10 job types reported in detail in the first analysis, together with its matched pair, is given in Table 40. The position of the unreported groups has been marked, in retrospect, on the appropriate branch diagram, shown X together with its group number.

Thirteen of the job types reported in the first analysis were also reported in the second. These accounted for 851 and 846 cases respectively of the 1,983 in each sample. Ten other job types reported in the first analysis, accounting for 693 cases, were matched by 10 unreported groups, accounting for 727 cases, in the second. Six job type groups in the first sample, accounting for 73 cases, could not be matched by job type groups in the second. This was due primarily to the size of each group being below the 10 case minimum set in job typing the second sample.

The stability of the size of the groups reported on the two occasions was tested using  $\chi^2$ , the results being shown in Table 41. In no case was  $\chi^2$  significant at the .5 level. Inspection shows that the groups are quite stable, though there is some decrease in stability for the smaller job types. Managers extrapolating survey results to total populations should be cognizant of this reduced stability for small groups.

In conclusion, all job types identified by the first analyst were identified by the second, with the exception of six small job types accounting for 73 cases. While there were some variations in the size and nature of the job type groups from one analyst to the other, differences were sufficiently small that a manager using either analysis should have made essentially the same decisions.

## REFERENCES

Archer, W.B. *Computation of group job descriptions from occupational survey data*. PRL-TR-66-12, AD-653 543. Lackland AFB, Tex.: Personnel Research Laboratory, Aerospace Medical Division, December 1966.

Occupational Survey Report, AFPT 90-64X-069. Lackland AFB, Tex.: Occupational Survey Division, 3700th Occupational Measurement Squadron (ATC), October 1972